	ΑIJ	9179490	A1	19920109	AU	1991-79490	19910701	<
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	-	58288	A2	19920228	HU	1991-2206	19910701	<
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		04230363	A2	19920819	JP	1991-185774	19910701	<
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	US	5532232	Α	19960702	US	1994-343168	19941122	<
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PRAI	CH	1990-2250	Α	19900705				
	CH	1991-1315	A	19910502				
	US	1991-719429	A3	19910624				
	$_{ ext{IL}}$	1991-98690	A 3	19910701				
	FI	1991-3282	Α	19910705				
	US	1993-77476	A 3	19930615				
	US	1994-343168	A3	19941122				
	US	1995-473060	A3	19950607				
os	MAF	RPAT 116:214908						
GI								

$$RSO_2N(X)MCOL$$
 NH_2
 NH

AB Title compds. [I; R, R3 = (hetero)aryl, heterocyclyl; T = CH2, O; L = NH, O; N(X)M = N(SO2R3)CH2, (substituted) isoquinolinylene; X = H, CH2CO2H, alkoxycarbonylmethyl, alkyleneiminocarbonylmethyl, (alkylated) CH2CONH2; M = R1CH2CH, R1COCH2CH, PhCH2O2CNHCH2CH, etc.; R1 = (hetero)aryl, heterocyclyl, cycloalkyl], were prepd. Thus, tert-Bu R-4-hydroxymethyl-2,2-dimethyl-3-oxazolidinecarboxylate was successively tosylated, condensed with 2-indolinone using NaH in DMF, and treated with 2N HCl to give 1-[(R)-2-amino-3-hydroxypropyl]-2-indolinone. This was acylated with 2-naphthylsulfonyl chloride followed by Jones oxidn. to give N-(2-naphthylsulfonyl)-3-(2,3-dioxo-1-indolinyl)-D-alanine. This was converted to (R)-N-[(RS)-1-aminido-3-piperidinylmethyl]-.alpha.-(2naphthylsulfonamido-2,3-dioxo-1-indolinepropionamide acetate. The latter inhibited thrombin with Ki = 8.55 nM and trypsin with Ki = 20,075.

I

IT 140644-50-4P 140644-80-0P 140644-82-2P

140644-84-4P 140644-86-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. of, as antithrombotic)

RN 140644-50-4 CAPLUS

CN Benzoic acid, 4-[[4-[3-[[[1-(aminoiminomethyl)-3-piperidinyl]methyl]amino]- 2-[(2-naphthalenylsulfonyl)amino]-3-oxopropyl]benzoyl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} NH \\ || \\ || \\ || \\ CH_2 \\ || \\ NH \\ || \\ O \\ C = O \\ || \\ S - NH - CH - CH_2 \\ || \\ O \\ CO_2H \end{array}$$

PAGE 2-A

● HCl

RN 140644-80-0 CAPLUS

CN Benzoic acid, 2-[[[2-[[[1-(aminoiminomethyl)-3-piperidinyl]methyl]amino]-1[[(2-naphthalenylsulfonyl)amino]methyl]-2-oxoethyl]amino]carbonyl]- (9CI)
(CA INDEX NAME)

RN 140644-82-2 CAPLUS

CN Benzamide, N-[2-[[[1-(aminoiminomethyl)-3-piperidinyl]methyl]amino]-1-[[(2-naphthalenylsulfonyl)amino]methyl]-2-oxoethyl]-2-(phenylmethoxy)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N-C} \\ \\ \text{CH}_2 \\ \\ \text{NH} \\ \\ \text{O} \\ \\ \text{S-NH-CH}_2\text{-CH-NH-C} \\ \\ \text{O} \\ \\ \text{Ph-CH}_2\text{-O} \\ \end{array}$$

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 140644-84-4 CAPLUS

CN Benzamide, N-[2-[[[1-(aminoiminomethyl)-3-piperidinyl]methyl]amino]-1-[[(2-naphthalenylsulfonyl)amino]methyl]-2-oxoethyl]-2-hydroxy-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 140644-83-3 CMF C27 H32 N6 O5 S

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 140644-86-6 CAPLUS

CN Benzamide, 2-amino-N-[2-[[[1-(aminoiminomethyl)-3-piperidinyl]methyl]amino]-1-[[(2-naphthalenylsulfonyl)amino]methyl]-2-oxoethyl]-, [S-(R*,R*)]-, sulfite (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 140644-85-5 CMF C27 H33 N7 O4 S

Absolute stereochemistry.

CM 2

CRN 7782-99-2 CMF H2 O3 S

IT 140645-75-6P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as intermediate for antithrombotic)

RN 140645-75-6 CAPLUS

CN Benzoic acid, 4-[[4-[3-[[[1-(aminoiminomethyl)-3-piperidinyl]methyl]amino]-2-[(2-naphthalenylsulfonyl)amino]-3-oxopropyl]benzoyl]amino]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

```
AN
     1999:626174 CAPLUS
DN
     131:243595
     Preparation of piperidinyl and N-amidinopiperidinyl amino acid derivatives
TI
     for inhibition of Factor Xa
     Klein, Scott I.; Guertin, Kevin R.
IN
     Rhone-Poulenc Rorer Pharmaceuticals Inc., USA
PA
     PCT Int. Appl., 91 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 5
                      KIND DATE
                                            APPLICATION NO. DATE
     PATENT NO.
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     WO 9948870
                       A1
                            19990930
                                           WO 1999-US6224
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             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
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                                            CA 1999-2325471 19990322
                            19990930
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                       AΑ
                       A1
                            19991018
                                            AU 1999-31094
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                                            EP 1999-912798
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                       A1
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                                            BR 1999-9086
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                                            JP 2000-537853
                                                             19990322
     JP 2002507600
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                            20020312
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                                                             20010806
     US 2002016339
                       A1
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PRAI US 1998-79002P
                       A2
                            19980323
     US 1999-273618
                       A3
                            19990322
     WO 1999-US6224
                       W
                            19990322
OS
     MARPAT 131:243595
     Compds. R1R2CHCHR3NR7COR4 [R1 = (CH2CH2) mZ3, (CH:CH) mZ3, or (CH2) nZ3,
AΒ
     where m = 1 or 2; n = 0, 1, or 3; Z3 = substituted aryl, cycloalkyl, or
     cycloalkenyl, (un) substituted heteroaryl, heterocyclyl,
     heterocyclenyl, etc.; R2 = H, CO2R5, COR5, CONR52, CH2OR6, CH2SR6, where R5
     = H, alkyl; R6 = H, (un) substituted alkyl, acyl, aroyl, heteroaroyl; R3 =
     H, (un) substituted alkyl, (CH2CH2)oZ2, (CH:CH)oZ2, (CH2)pZ2, where o = 1
     or 2; p = 0, 1, or 3; Z2 = (un)substituted aryl, heteroaryl, cycloalkyl,
     cycloalkenyl, heterocyclyl, or heterocyclenyl; R4 = alkyl, alkenyl,
     alkynyl, (un) substituted cycloalkyl, heterocyclyl, aryl, heteroaryl, etc.;
     R7 = H, alkyl] were prepd. for inhibiting the activity of Factor Xa.
     Thus, N-(4-phenylbenzoyl)-2-(R)-(1,2,5,6-tetrahydro-3-pyridylmethyl)-3-(R)-
     .beta.-alanine Me ester was prepd. via alkylation/acylation of
     N-(tert-butoxycarbonyl)-3(R)-.beta.-alanine Me ester.
     244267-06-9P 244267-08-1P
IT
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (prepn. of piperidinyl and N-amidinopiperidinyl amino acid derivs. for
        inhibition of Factor Xa)
     244267-06-9 CAPLUS
RN
     4-Pyridinepropanoic acid, 1-(aminoiminomethyl)-.alpha.-[(1R)-1-[([1,1'-
CN
     biphenyl]-4-ylcarbonyl)amino]ethyl]-1,2,3,6-tetrahydro-, methyl ester,
     (.alpha.R) - (9CI)
                       (CA INDEX NAME)
```

Absolute stereochemistry.

RN 244267-08-1 CAPLUS

CN 4-Piperidinepropanoic acid, 1-(aminoiminomethyl)-.alpha.-[(1R)-1-[([1,1'-biphenyl]-4-ylcarbonyl)amino]ethyl]-, methyl ester, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} O & Me \\ \hline N & R \\ \hline N & R \\ \hline N & NH_2 \\ \hline \end{array}$$

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT



```
1998:545398 CAPLUS
ΑN
DN
     129:161574
     Preparation of [(N-amidinoazinyl)alkoxy]phenyl benzenesulfonates and
ΤI
     analogs as protease inhibitors
     Lu, Tianbao; Illig, Carl R.; Tomczuk, Bruce E.; Soll, Richard M.;
IN
     Subasinghe, Nalin L.; Bone, Roger F.
PΑ
     3-Dimensional Pharmaceuticals, Inc., USA
     U.S., 43 pp., Cont.-in-part of U.S. Ser. No. 536,939, abandoned.
SO
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 2
                                                           DATE
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                                           NO 1998-1393
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     WO 1996-US15609
                       W
                            19960927
os
     MARPAT 129:161574
GI
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C1 Me
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$$\begin{array}{c} 0 \\ \parallel \\ 0 \end{array}$$

$$\begin{array}{c} 0 \\ \parallel \\ 0 \end{array}$$

$$\begin{array}{c} 0 \\ \downarrow \\ N \\ \downarrow \\ NH_2 \\ HN \end{array}$$

$$\begin{array}{c} 11 \\ 11 \\ 11 \end{array}$$

AB Title compds. I [R1 = (un)substituted alk(en/yn)yl, aryl(alkyl), (hetero)aryl, etc.; R2, R3, R4 = H, alky(en/yn)yl, cycloalkyl, aryl(alkyl), CF3, halo, cyano, CO2H or esters, etc.; or R2R3 = CH:CHCH:CH or (CH2)2-6; Z = NR10SO2, SO2O, NR10CO, CH2NR10, etc.; Y = bond, O, S, (un) substituted NH or CH2; W = N or (un) substituted CH; R7, R8 = H, alkyl, aryl(alkyl), hydroxyalkyl, carboxyalkyl; or R7R8 = bond, CH2, CH2CH2, with proviso; R10 = H, (alkoxy)alkyl, aryl(alkyl), etc.; Ra-Rc = H, OH, cyano, alkyl, alkoxy, aryloxy, etc.; m = 0-4; n = 0-8; with provisos] were prepd. For instance, orcinol underwent monoetherification with PhCH2Br (31%) and then esterification with 2-ClC6H4SO2Cl (88%) and hydrogenolysis (89%) to give 2-chlorobenzenesulfonic acid 3-hydroxy-5-methylphenyl ester. The latter was etherified with N-(tert-butoxycarbonyl)-4piperidinemethanol using the Mitsunobu reaction (90%), followed by removal of the BOC group (95%) and guanidylation with aminoiminomethanesulfonic acid (36%), to give title compd. II. The latter inhibited human thrombin in vitro with a Ki of 0.008 .mu.M.

I

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 219519-91-2P 219519-94-5P 219519-96-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(debenzyloxycarbonylation; prepn. of dibenzoylbenzenediamines as antithrombotic agents)

RN 219519-91-2 CAPLUS

CN Carbamic acid, [[3-[[[2-[[4-(1,1-dimethylethyl)benzoyl]amino]phenyl]amino] carbonyl]-1-piperidinyl] [[(phenylmethoxy)carbonyl]amino]methylene]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 219519-94-5 CAPLUS

CN Benzoic acid, 3-[[4-(1,1-dimethylethyl)benzoyl]amino]-4-[[[1-[[(phenylmethoxy)carbonyl]amino][[(phenylmethoxy)carbonyl]imino]methyl]-3piperidinyl]carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

RN 219519-96-7 CAPLUS

CN Benzoic acid, 3-[[4-(1,1-dimethylethyl)benzoyl]amino]-4-[[[1-[[(phenylmethoxy)carbonyl]amino][[(phenylmethoxy)carbonyl]imino]methyl]-3piperidinyl]carbonyl]amino]- (9CI) (CA INDEX NAME)

IT 219519-93-4P 219519-95-6P 219519-97-8P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of dibenzoylbenzenediamines as antithrombotic agents)

RN 219519-93-4 CAPLUS

CN 3-Piperidinecarboxamide, 1-(aminoiminomethyl)-N-[2-[[4-(1,1-dimethylethyl)benzoyl]amino]phenyl]-, mono(trifluoroacetate) (9CI) (CNINDEX NAME)

CM 1

CRN 219519-92-3 CMF C24 H31 N5 O2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 219519-95-6 CAPLUS

CN Benzoic acid, 4-[[[1-(aminoiminomethyl)-3-piperidinyl]carbonyl]amino]-3-[[4-(1,1-dimethylethyl)benzoyl]amino]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 219519-97-8 CAPLUS

CN Benzoic acid, 4-[[[1-(aminoiminomethyl)-3-piperidinyl]carbonyl]amino]-3[[4-(1,1-dimethylethyl)benzoyl]amino]-, monohydrochloride (9CI) (CA_INDEX_NAME)

● HCl

$$\begin{array}{c} NH \\ H_2N-C \\ NH \\ O \\ C=O \\ S-NH-CH-CH_2 \\ O \\ C-OMe \\ O \\ \end{array}$$

PAGE 2-A

● HCl

L16 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2003 ACS

AN 1991:492947 CAPLUS

DN 115:92947

TI Preparation of N-amidobenzoyl-.beta.-alanines and analogs as fibrinogen antagonists and antitumor agents

IN Alig, Leo; Edenhofer, Albrecht; Mueller, Marcel; Trzeciak, Arnold; Weller,
Thomas

PA Hoffmann-La Roche, F., und Co. A.-G., Switz.

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

PAN.CNI I									
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		ΕP	372486		A 3	19910612			
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			R: AT,	BE,	CH, DE	, ES, FR,	GB,	GR, IT, LI, LU, NL, SE	
		US	5039805		Α	19910813		US 1989-440949 19891124	<
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		ZA	8909210		Α	19900829		ZA 1989-9210 19891201	<
		ΙL	92518		A 1	19941129		IL 1989-92518 19891201	<
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		HU	206192		В	19920928			
		AU	8945865		A1	19901101		AU 1989-45865 19891204	<
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			02223543		A2	19900905		JP 1989-320391 19891208	
		UP	02223343		A4	13300303		OF 1303-320331 13031200	(

	JP 06010179	B4	19940209
PRAI	CH 1988-4543		19881208
	CH 1989-3703		19891011
	EP 1989-122396		19891205
os	MARPAT 115:92947		
GI			

The title compds. [I; A = R1CONH(CH2)i; G = (CH2)jCONHCHR1CH2CO2H; R1 = CHRa(CH2)nNHR6, TlC6H4CH2NHRc, TmC6H4(NH)pC(:NH)NH2, aminomethylcyclohexyl, etc.; Ra = H, NH2, alkoxycarbonylamino, NHCO2CH2Ph, NHCOCH2NYCH2CH2NHY; R6 = H, amidino, C(:NH)(CH2)hMe; Rc = H, amidino; R2 = H, me, OMe, NO2, halo, etc.; R3 = H, CONH2, CORf, CO2Rg; Rf= N-linked amino acid residue; Rg = H, alkyl; T = CH2, CH:CH, CHRdCH2; Rd = groups cited for Ra, NHBz, NHCOC6H4N3, arylsulfonylamino; Y = H, CO2CMe3, CO2CH2Ph; i, j, l, m, p = 0,1; k = 0-3; n = 1-6] were prepd. Thus, RCl [R = 4-[H2N(HN:)C]C6H4CO] was condensed with 3-(R4HN)C6H4CONHCH2CH2CO2R5 (II; R4 = H, R5 = CH2Ph) to give, after hydrogenolysis, II (R4 = R, R5 = H) which had IC50 of 10-4 .mu.M against fibrinogen binding to glycoprotein IIb/IIIa.

IT 135322-11-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of antitumor agents and fibrinogen antagonists)

RN 135322-11-1 CAPLUS

CN .beta.-Alanine, N-[3-[[3-[1-[[(1,1-dimethylethoxy)carbonyl]amino][[(1,1-dimethylethoxy)carbonyl]imino]methyl]-4-piperidinyl]-1oxopropyl]amino]benzoyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

-- OBu-t

IT 135321-08-3P 135321-11-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as antitumor agent and fibrinogen antagonist)
RN 135321-08-3 CAPLUS
CN L-Phenylalanine, N-[N-[3-[[[1-(aminoiminomethyl)-4 piperidinyl]carbonyl]amino]benzoyl]-L-.alpha.-aspartyl]-,
 mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1
CRN 135321-07-2

Absolute stereochemistry.

CMF C27 H32 N6 O7

CM 2

CRN 76-05-1 CMF C2 H F3 O2

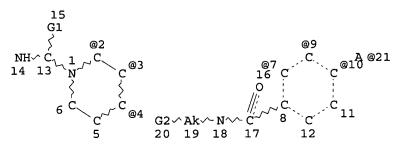
RN 135321-11-8 CAPLUS
CN .beta.-Alanine, N-[3-[[3-[1-(aminoiminomethyl)-4-piperidinyl]-1-oxopropyl]amino]benzoyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 135321-10-7 CMF C19 H27 N5 O4

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RSPEC 4 8

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

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ENTER SUBSET L# OR (END):13
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100.0% PROCESSED 269 ITERATIONS

20 ANSWERS

SEARCH TIME: 00.00.01

L9 20 SEA SUB=L3 SSS FUL L8

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	36.10	235.93
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-11.72

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FILE COVERS 1907 - 14 Apr 2003 VOL 138 ISS 16 FILE LAST UPDATED: 13 Apr 2003 (20030413/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 19 L10 2 L9

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AN
    2002:449651 CAPLUS
DN
    137:20300
    Preparation of quanidines and amidines as Factor Xa and/or VIIa
TΙ
    inhibitors.
IN
    Peyman, Anuschirwan; Will, David William; Gerlach, Uwe; Nazare, Marc;
    Zoller, Gerhard; Nestler, Hans-Peter; Matter, Hans; Al-Obeidi, Fahad
PΑ
    Aventis Pharma Deutschland G.m.b.H., Germany
SO
    PCT Int. Appl., 61 pp.
    CODEN: PIXXD2
    Patent
DT
    English
LΑ
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                        APPLICATION NO. DATE
    _____
                                        ______
                                                         ------
                                        WO 2001-EP13874 20011128
    WO 2002046159
                    A1 20020613
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
            HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
            LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
            PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
            UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                       AU 2002-33206 20011128
    AU 2002033206
                    A5
                          20020618
                                         US 2001-4422
    US 2002173656
                     A1
                           20021121
                                                         20011206
PRAI EP 2000-126750
                     Α
                           20001206
    WO 2001-EP13874
                     W
                          20011128
OS
    MARPAT 137:20300
             THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
L10
AN
    1999:365690 CAPLUS
DN
    131:44660
    Preparation of biphenylamidine derivatives as factor Xa inhibitors and
ΤI
    anticoagulants containing them
    Nakata, Tomohisa; Hara, Takayuki; Takano, Yasunobu; Sugiura, Satoshi;
IN
    Tsutsumi, Takaharu; Takasawa, Haruji; Takarada, Reiko
PΑ
    Teijin Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 31 pp.
SO
    CODEN: JKXXAF
DT
    Patent
LΑ
    Japanese
FAN.CNT 1
                   KIND DATE
    PATENT NO.
                                        APPLICATION NO. DATE
                   ----
                                        -----
    JP 11152269 A2 19990608
                                        JP 1997-319697 19971120
PΙ
PRAI JP 1997-319697
                         19971120
OS
   MARPAT 131:44660
=> d hitstr 2
    ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
L10
    227474-39-7P 227474-49-9P
IT
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
     (Reactant or reagent); USES (Uses)
```

(prepn. of biphenylamidine derivs. as factor Xa inhibitors)

ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS

L10

RN 227474-39-7 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-(aminoiminomethyl)-5-[[[[1-(1-iminoethyl)-4-piperidinyl]methyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} NH & O & NH \\ \parallel & C-Me \\ H_2N-C & \parallel & \\ \hline C-OMe & \\ \parallel & O \end{array}$$

=> d 13L3 HAS NO ANSWERS L3

VAR G1=C/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RSPEC 1 14 19 NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

=> s 13 ful FULL SEARCH INITIATED 16:31:52 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED -2577 TO ITERATE

100.0% PROCESSED 2577 ITERATIONS

SEARCH TIME: 00.00.01

22 SEA SSS FUL L3 L5

=> fil caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 150.95 FULL ESTIMATED COST 151.16

22 ANSWERS

FILE 'CAPLUS' ENTERED AT 16:31:55 ON 14 APR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 14 Apr 2003 VOL 138 ISS 16 FILE LAST UPDATED: 13 Apr 2003 (20030413/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s 15
L6
             3 L5
=> d bib abs 1-3
     ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS
L6
AN
     2002:449651 CAPLUS
DN
     137:20300
     Preparation of quanidines and amidines as Factor Xa and/or VIIa
ΤI
     inhibitors.
ΙŃ
     Peyman, Anuschirwan; Will, David William; Gerlach, Uwe; Nazare, Marc;
     Zoller, Gerhard; Nestler, Hans-Peter; Matter, Hans; Al-Obeidi, Fahad
PA
     Aventis Pharma Deutschland G.m.b.H., Germany
SO
     PCT Int. Appl., 61 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                      KIND
                                           APPLICATION NO.
     PATENT NO.
                                           WO 2001-EP13874 20011128
     WO 2002046159
                            20020613
PI
                       A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
             UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
                                                                      TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2002033206
                       A5
                            20020618
                                           AU 2002-33206
                                                             20011128
     US 2002173656
                       A1
                            20021121
                                           US 2001-4422
                                                             20011206
PRAI EP 2000-126750
                       Α
                            20001206
                       W
                            20011128
     WO 2001-EP13874
     MARPAT 137:20300
OS
GI
```

AB ROQXQ1DCONR10V [R0 = (substituted) Ph, heteroaryl contg. 1-2 N atoms; Q, Q1 = bond, O, S, NR10, CONR10, SO, SO2, CO, SO2NR10; R10 = H, alkyl; X = bond, (substituted) alkylene, cycloalkylene; D = mono-, bicyclic aryl, heterocyclyl, pyridyl; V = Q1, Q2, etc.; A = H, CO2H, (substituted) alkoxycarbonyl, etc.; L = bons, (substituted) alkylene; U = NH2, alkyl, alkoxycarbonylamino, etc.; M = H, alkyl, OH], were prepd. Thus,

dichlorophenyl)ethoxy]-5-hydroxybenzamide (I), prepd. by solid phase synthesis, inhibited Factor Xa with Ki = 0.0137 .mu.M. RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS AN1999:626174 CAPLUS DN 131:243595 Preparation of piperidinyl and N-amidinopiperidinyl amino acid derivatives ΤI for inhibition of Factor Xa Klein, Scott I.; Guertin, Kevin R. IN Rhone-Poulenc Rorer Pharmaceuticals Inc., USA PA SO PCT Int. Appl., 91 pp. CODEN: PIXXD2 DT Patent LΑ English FAN.CNT 5 APPLICATION NO. DATE PATENT NO. KIND DATE ----------A1 19990930 WO 1999-US6224 19990322 PΙ WO 9948870 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 19990930 CA 1999-2325471 19990322 CA 2325471 AA19991018 AU 1999-31094 19990322 AU 9931094 Α1 EP 1999-912798 19990322 EP 1080075 Α1 20010307 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI BR 9909086 20010904 BR 1999-9086 19990322 Α JP 2002507600 T2 JP 2000-537853 19990322 20020312 US 2002016339 A1 20020207 US 2001-922906 20010806 PRAI US 1998-79002P A2 19980323 US 1999-273618 A3 19990322 WO 1999-US6224 W 19990322 OS MARPAT 131:243595 Compds. R1R2CHCHR3NR7COR4 [R1 = (CH2CH2) mZ3, (CH:CH) mZ3, or (CH2) nZ3, AB where m = 1 or 2; n = 0, 1, or 3; Z3 = substituted aryl, cycloalkyl, or cycloalkenyl, (un) substituted heteroaryl, heterocyclyl, heterocyclenyl, etc.; R2 = H, CO2R5, COR5, CONR52, CH2OR6, CH2SR6, where R5 = H, alkyl; R6 = H, (un) substituted alkyl, acyl, aroyl, heteroaroyl; R3 = H, (un)substituted alkyl, (CH2CH2)oZ2, (CH:CH)oZ2, (CH2)pZ2, where o = 1 or 2; p = 0, 1, or 3; Z2 = (un)substituted aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocyclyl, or heterocyclenyl; R4 = alkyl, alkenyl, alkynyl, (un) substituted cycloalkyl, heterocyclyl, aryl, heteroaryl, etc.; R7 = H, alkyl] were prepd. for inhibiting the activity of Factor Xa. Thus, N-(4-phenylbenzoyl)-2-(R)-(1,2,5,6-tetrahydro-3-pyridylmethyl)-3-(R)-.beta.-alanine Me ester was prepd. via alkylation/acylation of N-(tert-butoxycarbonyl)-3(R)-.beta.-alanine Me ester. RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS AN1999:365690 CAPLUS DN 131:44660 Preparation of biphenylamidine derivatives as factor Xa inhibitors and TI anticoagulants containing them

Nakata, Tomohisa; Hara, Takayuki; Takano, Yasunobu; Sugiura, Satoshi;

Tsutsumi, Takaharu; Takasawa, Haruji; Takarada, Reiko

IN

4-Bromo-N-(1-carbamimidoylpiperidin-4-ylmethyl)-3-[2-(2,4-

PA Teijin Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 11152269 A2 19990608 JP 1997-319697 19971120

PRAI JP 1997-319697 19971120

OS MARPAT 131:44660

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The title derivs. I [A = amidino in which one N atom may be substituted AB with OH, NH2, C1-8 alkyl, aryl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl; R1 = H, F, Cl, Br, NH2, NO2, C1-8 alkyl, C1-8 alkoxy; L = direct bond, C1-4 alkylene; R2 = H, F, Cl, Br, OH, NH2, Cl-8 alkoxy, CO2H, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, carbamoyl which may be substituted with 1-2 C1-8 alkyl or in which N may be derived from amino acid residue, C1-8 alkylcarbonyl, alkylsulfenyl, alkylsulfinyl, alkylsulfonyl, mono- or di-C1-8 alkyl-amino, mono- or di-C1-8 alkylaminosulfonyl, SO3H, phosphono, bis(hydroxycarbonyl)methyl, bis(alkoxycarbonyl)methyl, 5-tetrazolyl; R3 = H, F, Cl, Br, OH, NH2, NO2, C1-8 alkyl, CO2H, alkoxycarbonyl; n = 0-3; X = 0-3O, S, SO, SO2, NHCONH, NR4, CONR5, NR5CO, NR5SO2, SO2NR5 (R4 = H, C1-10 alkyl, C1-10 alkylcarbonyl, C1-10 alkylsulfonyl; R5 = H, C1-10 alkyl; alkyl in R4 and R5 may be substituted with aryl, OH, NH2, halo, C1-8 alkoxy, CO2H, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, carbamoyl which may be substituted with 1-2 C1-8 alkyl or in which N may be derived from amino acid residue, 5-tetrazolyl); Y = C4-8 cycloalkyl, adamantyl (CH2 of these ring may be replaced by CO or may be substituted), heterocyclyl Q (5-8 member), Q1 (6-8 member), Q2 (6-8 member) (substituents of the rings are defined)] and their pharmaceutically acce. Also claimed are anticoagulants or prophylactic and therapeutic drugs contg. I or their salts and excipients. Me 3-(3-amidinophenyl)-5-[2-(1acetimidoyl-4-piperidyl)ethylamino]benzoate (II) was prepd. from Me 3-amino-5-hydroxybenzoate via Me 3-(tert-butoxycarbonyl)amino-5hydroxybenzoate, Me 3-(tert-butoxycarbonyl)amino-5-(trifluoromethanesulfonyl)oxybenzoate, Me 3-(3-cyanophenyl)-5-(tertbutoxycarbonyl)aminobenzoate, Me 3-(3-cyanophenyl)-5-aminobenzoate, Me 3-(3-cyanophenyl)-5-[2-(1-tert-butoxycarbonyl-4piperidyl)ethylamino]benzoate, and Me 3-(3-amidinophenyl)-5-[2-(4piperidyl)ethylamino]benzoate. IC50 of II against factor Xa was 0.1-10 .mu.M.

```
1999:626174 CAPLUS
AN
DN
     131:243595
     Preparation of piperidinyl and N-amidinopiperidinyl amino acid derivatives
TI
     for inhibition of Factor Xa
     Klein, Scott I.; Guertin, Kevin R.
IN
PΑ
     Rhone-Poulenc Rorer Pharmaceuticals Inc., USA
SO
     PCT Int. Appl., 91 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 5
     PATENT NO.
                     KIND DATE
                                           APPLICATION NO. DATE
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                            19990930
                                                           19990322
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     WO 9948870
                      A1
                                          WO 1999-US6224
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             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ,
             VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                            19990930
                                           CA 1999-2325471 19990322
     CA 2325471
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                            19991018
                                           AU 1999-31094
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     EP 1080075
                                           EP 1999-912798
                       A1
                                                            19990322
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
     BR 9909086
                                           BR 1999-9086
                                                            19990322
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     JP 2002507600
                       T2
                                           JP 2000-537853
                                                            19990322
                            20020312
                                           US 2001-922906
     US 2002016339
                       Α1
                            20020207
                                                            20010806
PRAI US 1998-79002P
                       Α2
                            19980323
     US 1999-273618
                       Α3
                            19990322
     WO 1999-US6224
                       W
                            19990322
OS
     MARPAT 131:243595
     Compds. R1R2CHCHR3NR7COR4 [R1 = (CH2CH2) mZ3, (CH:CH) mZ3, or (CH2) nZ3,
AΒ
     where m = 1 or 2; n = 0, 1, or 3; Z3 = substituted aryl, cycloalkyl, or
     cycloalkenyl, (un) substituted heteroaryl, heterocyclyl,
     heterocyclenyl, etc.; R2 = H, CO2R5, COR5, CONR52, CH2OR6, CH2SR6, where R5
     = H, alkyl; R6 = H, (un)substituted alkyl, acyl, aroyl, heteroaroyl; R3 =
     H, (un) substituted alkyl, (CH2CH2) oZ2, (CH:CH) oZ2, (CH2) pZ2, where o = 1
     or 2; p = 0, 1, or 3; Z2 = (un) substituted aryl, heteroaryl, cycloalkyl,
     cycloalkenyl, heterocyclyl, or heterocyclenyl; R4 = alkyl, alkenyl,
     alkynyl, (un) substituted cycloalkyl, heterocyclyl, aryl, heteroaryl, etc.;
     R7 = H, alkyl] were prepd. for inhibiting the activity of Factor Xa.
     Thus, N-(4-phenylbenzoyl)-2-(R)-(1,2,5,6-tetrahydro-3-pyridylmethyl)-3-(R)-
     .beta.-alanine Me ester was prepd. via alkylation/acylation of
     N-(tert-butoxycarbonyl)-3(R)-.beta.-alanine Me ester.
     244267-06-9P 244267-08-1P 244267-12-7P
IT
     244267-15-0P
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (prepn. of piperidinyl and N-amidinopiperidinyl amino acid derivs. for
        inhibition of Factor Xa)
RN
     244267-06-9 CAPLUS
CN
     4-Pyridinepropanoic acid, 1-(aminoiminomethyl)-.alpha.-[(1R)-1-[([1,1'-
     biphenyl]-4-ylcarbonyl)amino]ethyl]-1,2,3,6-tetrahydro-, methyl ester,
     (.alpha.R) - (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

RN 244267-08-1 CAPLUS

CN 4-Piperidinepropanoic acid, 1-(aminoiminomethyl)-.alpha.-[(1R)-1-[([1,1'-biphenyl]-4-ylcarbonyl)amino]ethyl]-, methyl ester, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Me} \\ & \text{N} \\ & \text{R} \\ & \text{OMe} \\ & \text{NH} \end{array}$$

RN 244267-12-7 CAPLUS

CN 4-Piperidinebutanoic acid, 1-(aminoiminomethyl)-.alpha.-[(1R)-3-phenyl-1[[4-(3-pyridinyl)benzoyl]amino]propyl]-, methyl ester, (.alpha.R)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

RN 244267-15-0 CAPLUS

CN 4-Piperidinepentanoic acid, 1-(aminoiminomethyl)-.alpha.-[(1R)-3-phenyl-1[[4-(3-pyridinyl)benzoyl]amino]propyl]-, methyl ester, (.alpha.R)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

1999:365690 CAPLUS ANDN 131:44660 Preparation of biphenylamidine derivatives as factor Xa inhibitors and ΤI anticoagulants containing them Nakata, Tomohisa; Hara, Takayuki; Takano, Yasunobu; Sugiura, Satoshi; ΙN Tsutsumi, Takaharu; Takasawa, Haruji; Takarada, Reiko PA Teijin Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 31 pp. CODEN: JKXXAF Patent DТ LA Japanese FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE _____ -----JP 11152269 A2 19990608 JP 1997-319697 19971120 PRAI JP 1997-319697 19971120 MARPAT 131:44660 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The title derivs. I [A = amidino in which one N atom may be substituted with OH, NH2, C1-8 alkyl, aryl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl; R1 = H, F, Cl, Br, NH2, NO2, C1-8 alkyl, C1-8 alkoxy; L = direct bond, C1-4 alkylene; R2 = H, F, Cl, Br, OH, NH2, Cl-8 alkoxy, CO2H, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, carbamoyl which may be substituted with 1-2 C1-8 alkyl or in which N may be derived from amino acid residue, C1-8 alkylcarbonyl, alkylsulfenyl, alkylsulfinyl, alkylsulfonyl, mono- or di-C1-8 alkyl-amino, mono- or di-C1-8 alkylaminosulfonyl, SO3H, phosphono, bis (hydroxycarbonyl) methyl, bis (alkoxycarbonyl) methyl, 5-tetrazolyl; R3 = H, F, Cl, Br, OH, NH2, NO2, C1-8 alkyl, CO2H, alkoxycarbonyl; n = 0-3; X = O, S, SO, SO2, NHCONH, NR4, CONR5, NR5CO, NR5SO2, SO2NR5 (R4 = H, C1-10 alkyl, C1-10 a alkyl in R4 and R5 may be substituted with aryl, OH, NH2, halo, C1-8 alkoxy, CO2H, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, carbamoyl which may be substituted with 1-2 C1-8 alkyl or in which N may be derived from amino acid residue, 5-tetrazolyl); Y = C4-8 cycloalkyl, adamantyl (CH2 of these ring may be replaced by CO or may be substituted), heterocyclyl Q (5-8 member), Q1 (6-8 member), Q2 (6-8 member) (substituents of the rings are defined)] and their pharmaceutically acce. Also claimed are anticoagulants or prophylactic and therapeutic drugs contg. I or their salts and excipients. Me 3-(3-amidinophenyl)-5-[2-(1acetimidoyl-4-piperidyl)ethylamino]benzoate (II) was prepd. from Me 3-amino-5-hydroxybenzoate via Me 3-(tert-butoxycarbonyl)amino-5hydroxybenzoate, Me 3-(tert-butoxycarbonyl)amino-5-(trifluoromethanesulfonyl)oxybenzoate, Me 3-(3-cyanophenyl)-5-(tertbutoxycarbonyl) aminobenzoate, Me 3-(3-cyanophenyl)-5-aminobenzoate, Me 3-(3-cyanophenyl)-5-[2-(1-tert-butoxycarbonyl-4piperidyl)ethylamino]benzoate, and Me 3-(3-amidinophenyl)-5-[2-(4piperidyl)ethylamino]benzoate. IC50 of II against factor Xa was 0.1-10 .mu.M.

IT 227474-39-7P 227474-49-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of biphenylamidine derivs. as factor Xa inhibitors)

227474-39-7 CAPLUS RN

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-(aminoiminomethyl)-5-[[[[1-(1-iminoethyl)-4-piperidinyl]methyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N-C} \\ \\ \text{C-OMe} \\ \\ \text{O} \\ \end{array}$$

RN 227474-49-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-(aminoiminomethyl)-5-[[[[1-(1-iminoethyl)-4-piperidinyl]methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & \\ NH & & & & \\ NH & & & \\ H_2N-C & & & \\ & & & \\ C-NH-CH_2 & & & \\ & & & \\ & & & \\ C-Me & & \\ \end{array}$$

IT 227474-61-5P 227474-63-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of biphenylamidine derivs. as factor Xa inhibitors)

RN 227474-61-5 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-[[[[2-(acetyloxy)-1,1-dimethylethoxy]carbonyl]amino]iminomethyl]-5-[[[[1-(1-iminoethyl)-4-piperidinyl]methyl]amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 227474-63-7 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-[[[[2-(acetyloxy)-1,1-

dimethylethoxy]carbonyl]amino]iminomethyl]-5-[[[[1-(1-iminoethyl)-4piperidinyl]methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

AN 2001:150305 CAPLUS

DN 135:15886

TI Computational modelling of inhibitor binding to human thrombin

AU Ljungberg, K. B.; Marelius, J.; Musil, D.; Svensson, P.; Norden, B.; Aqvist, J.

CS BMC, Department of Cell and Molecular Biology, Uppsala University, Uppsala, SE-751 24, Swed.

SO European Journal of Pharmaceutical Sciences (2001), 12(4), 441-446 CODEN: EPSCED; ISSN: 0928-0987

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

Thrombin is an essential protein involved in blood clot formation and an AB important clin. target, since disturbances of the coagulation process cause serious cardiovascular diseases such as thrombosis. Here the authors evaluate the performance of a mol. dynamics based method for predicting the binding affinities of different types of human thrombin For a series of eight ligands, the method ranks their relative affinities reasonably well. The binding free energy difference between high and low affinity representatives in the test set is quant. reproduced, as well as the stereospecificity for a chiral inhibitor. original parametrization of this linear interaction energy method requires the addn. of a const. energy term in the case of thrombin. This yields a mean unsigned error of 0.68 kcal/mol for the abs. binding free energies. This type of approach is also useful for elucidating three-dimensional structure-activity relationships in terms of microscopic interactions of the ligands with the solvated enzyme.

IT 342632-27-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)

(computational modeling of benzamidine deriv. inhibitors binding to human thrombin)

RN 342632-27-3 CAPLUS

CN 1,3-Dioxolane-4,5-dicarboxamide, N-[[4-(aminoiminomethyl)phenyl]methyl]-N'[(1R)-1-phenylethyl]-, (4R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

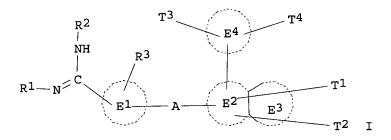
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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AN
     1998:550423 CAPLUS
DN
     129:175969
     Preparation of .beta.-(arylcarbonylamino)alanines and analogs as
ΤI
     fibrinogen receptor antagonist prodrugs
     Egbertson, Melissa S.; Young, Steve D.; Hartman, George D.; Cook,
IN
     Jacquelynn J.
     Merck & Co., Inc., USA
PA
SO
     PCT Int. Appl., 78 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
                    ____
                                          _____
PΙ
                     A1 19980813
                                         WO 1998-US1998 19980202
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            MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
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            FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
            GA, GN, ML, MR, NE, SN, TD, TG
                                          AU 1998-61413
     AU 9861413
                      A1
                           19980826
                                                           19980202
     AU 747293
                            20020516
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                                          EP 1998-906092
     EP 1023295
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                                                           19980202
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                                          JP 1998-534824
     JP 2001512439
                     T2
                            20010821
                                                           19980202
                                          US 1998-23650
     US 5981584
                      Α
                            19991109
                                                           19980203
PRAI US 1997-36901P
                      Ρ
                            19970206
     GB 1997-7489
                      Α
                            19970414
                            19980202
     WO 1998-US1998
                      W
OS
     MARPAT 129:175969
     H2NC(:NOH)Z1Z2Z3CONHCH2CR2R3CO2R4 [I; R2,R3 = H, OH, CO2H, (un)substituted
AB
     amino, etc.; R4 = H, alkyl, aryl, etc.; Z1 = (un)substituted phenylene; Z2
     = (CH2)mZ(CH2)p; Z = bond, O, CO, NH, CONH, etc.; Z3 = heterocyclylene,
     (hetero)arylene, etc.; m,p = 0-6] were prepd. as fibrinogen receptor
     antagonist prodrugs (no data). Thus, 4-(NC)C6H4NO2 was etherified by
     4-(HO)C6H4CO2H and the product amidated by (R)-H2NCH2CH(CO2Et)NHSO2C6H4Me-
     4 to give, after oximation, (R)-I (R2 = H, R3 = NHSO2C6H4Me-4, R4 = Et, Z1
     = Z3 = 1,4-phenylene, Z2 = 0).
TT
     211487-95-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of .beta.-(arylcarbonylamino)alanines and analogs as fibrinogen
        receptor antagonist prodrugs)
     211487-95-5 CAPLUS
RN
     L-Alanine, 3-[[[5-[[[4-[(hydroxyamino)iminomethyl]phenyl]amino]carbonyl]-2-
CN
     thienyl]carbonyl]amino]-N-[(4-methylphenyl)sulfonyl]-, ethyl ester (9CI)
     (CA INDEX NAME)
```

Absolute stereochemistry.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
1999:529128 CAPLUS
AN
     131:184864
DN
     Preparation of amidinophenylcarbamoylbiphenyl derivatives and heterocyclic
ΤI
     analogs thereof as inhibitors of blood coagulation factor VIIa
     Senokuchi, Kazuhiko; Ogawa, Koji
TN
PA
     Ono Pharmaceutical Co., Ltd., Japan
SO
     PCT Int. Appl., 665 pp.
     CODEN: PIXXD2
DT
     Patent
     Japanese
LA
FAN.CNT 1
                                           APPLICATION NO. DATE
     PATENT NO.
                      KIND DATE
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                                           ______
PΙ
     WO 9941231
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                            19990819
                                           WO 1999-JP622
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             NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
             UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
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                     . A1
                            19990830
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                                           EP 1999-902896
                                                             19990212
     EP 1078917
                       A1
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     ZA 9901273
                       Α
                                           US 2000-601998
     US 6358960
                       В1
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PRAI JP 1998-76815
                       Α
                            19980217
     WO 1999-JP622
                       W
                            19990212
    MARPAT 131:184864
os
GI
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ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS

The title compds. I [T1 = (R5)q; T2 = (R7)n; T3 = (R6)m; T4 = (R4)p; R1,AB R2 = H, alkoxycarbonyl, etc.; a proviso is given; R3 = H, alkyl, etc.; ring E1 = unsatd. heterocyclic ring, etc.; ring E2 = unsatd. heterocyclic ring, etc.; ring E3 = unsatd. or satd. heterocyclic ring, etc.; ring E3 may be omitted; ring E4 = unsatd. heterocyclic ring, etc.; R4, R5 = CO2R8, etc.; R8 = H, alkyl, etc.; p, q = 0, or 1, 2; p + q = 1 or 2; R6, R7 = H, alkyl, etc.; m = 1 - 3; n = 1 - 3] are prepd. I are useful as preventives and/or remedies for various vascular lesions assocg. accelerated coagulation activity, for example, universal intravascular coagulation syndrome, coronary thrombosis, brain infarction, brain embolism, transient cerebral ischemic attack, diseases assocg. cerebral vascular disorders, deep vein thrombosis, peripheral embolism, thrombus formation following artificial blood vessel operation or artificial valve replacement, diseases assocg. postoperative thrombus formation, reobstruction and reconstriction following coronary artery bypass, reobstruction and

reconstriction following PTCA or PTCR, thrombus formation during extracorporeal circulation and glomerulonephritis. Formulations contg. a compd. of this invention are given. In an in vitro test, 2-[2-(4-amidinophenylcarbamoyl)-6-methoxy-3-pyridyl]-5-[(1(S)-hydroxymethyl-2,2-dimethylpropyl)carbamoyl]benzoic acid methanesulfonic acid salt showed IC50 of 0.013 .mu.M against factor VIIa.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d hitstr 4

L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS

IT 239459-97-3P 239460-01-6P 239460-05-0P

239460-43-6P 239461-53-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and therapeutic effect of amidinophenylcarbamoylbiphenyl

derivs. and heterocyclic analogs thereof)

RN 239459-97-3 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH} & \\ & \\ \text{C-NH}_2 \\ \\ & \text{C-NH-CH}_2 - \text{CMe}_3 \\ \\ & \text{O} \end{array}$$

RN 239460-01-6 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-5-methyl-3-thienyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

RN 239460-05-0 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-5-methyl-3-furanyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH} & \text{NH} \\ & \text{C-NH} \\ & \text{C-NH} \\ & \text{C-NH-CH}_2\text{-CMe}_3 \\ & \text{O} \\ & \text{O}$$

Absolute stereochemistry.

Absolute stereochemistry.

IT 239452-21-2P 239457-15-9P 239457-16-0P 239458-70-9P 239458-77-6P 239458-79-8P

239458-81-2P 239459-02-0P 239459-85-9P

239459-86-0P 239459-98-4P 239460-02-7P

239460-06-1P 239460-44-7P 239461-54-2P

239463-51-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of amidinophenylcarbamoylbiphenyl derivs. and heterocyclic analogs thereof as inhibitors of blood coagulation factor VIIa)

239452-21-2 CAPLUS RN

CN

Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]benzo[b]th ien-3-yl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

239457-15-9 CAPLUS RN

Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]benzo[b]th CN ien-3-yl]- (9CI) (CA INDEX NAME)

RN 239457-16-0 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]benzo[b]th ien-3-yl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 239457-15-9 CMF C23 H17 N3 O3 S

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 239458-70-9 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-5-[[(2-methylpropyl)amino]carbonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & NH \\ & & & \\ &$$

RN 239458-77-6 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH} & \text{N$$

RN 239458-79-8 CAPLUS

CN Benzoic acid, 5-[[(2,2-dimethylpropyl)amino]carbonyl]-2-[2-[[[4-[imino[[(phenylmethoxy)carbonyl]amino]methyl]phenyl]amino]carbonyl]-5-methyl-3-thienyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 239458-81-2 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-5-methyl-3-furanyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} NH & & NH \\ \parallel & & C-NH_2 \\ \hline \\ NH & & C-NH_2 \\ \hline \\ C-NH & C-NH_2 - CH_2 - Ph \\ \hline \\ C-NH - CH_2 - CMe_3 \\ \parallel & O \end{array}$$

RN 239459-02-0 CAPLUS

CN Benzoic acid, 5-[[[(1S)-1-[(acetyloxy)methyl]-2,2-dimethylpropyl]amino]carbonyl]-2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 239459-85-9 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-5-[[(2-methylpropyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

RN 239459-86-0 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-5-[[(2-methylpropyl)amino]carbonyl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 239459-85-9 CMF C24 H24 N4 O4 S

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 239459-98-4 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 239459-97-3 CMF C25 H26 N4 O4 S

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 239460-02-7 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-5-methyl-3-thienyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 239460-01-6 CMF C26 H28 N4 O4 S

$$\begin{array}{c|c} & \text{NH} & \text{NH} \\ & \text{NH} \\ & \text{C-NH} \\ & \text{C-NH} \\ & \text{C-NH-CH}_2 - \text{CMe}_3 \\ & \text{O} \\ & & \text{O} \\ \end{array}$$

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 239460-06-1 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-5-methyl-3-furanyl]-5-[[(2,2-dimethylpropyl)amino]carbonyl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 239460-05-0 CMF C26 H28 N4 O5

$$\begin{array}{c} \text{NH} \\ \text{NH} \\ \text{C-NH}_2 \\ \text{HO}_2 \text{C} \\ \text{C-NH-CH}_2 - \text{CMe}_3 \\ \text{O} \\ \end{array}$$

CM 2

CRN 75-75-2

RN 239460-44-7 CAPLUS

CN Benzoic acid, 5-[[[(1S)-1-[(acetyloxy)methyl]-2,2-dimethylpropyl]amino]carbonyl]-2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 239460-43-6 CMF C28 H30 N4 O6 S

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 239461-54-2 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-thienyl]-5-[[[(1S)-1-(hydroxymethyl)-2,2-dimethylpropyl]amino]carbonyl]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 239461-53-1 CMF C26 H28 N4 O5 S

Absolute stereochemistry.

CM 2

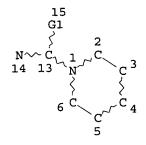
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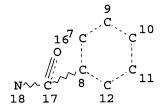
RN 239463-51-5 CAPLUS

CN Benzoic acid, 2-[2-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-5-methoxy-3-benzofuranyl]- (9CI) (CA INDEX NAME)

L1 HAS NO ANSWERS

L1 STR





VAR G1=C/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 4 8

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

=> s l1 ful

L3

FULL SEARCH INITIATED 17:28:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 3795 TO ITERATE

100.0% PROCESSED 3795 ITERATIONS

SEARCH TIME: 00.00.01

269 SEA SSS FUL L1

269 ANSWERS

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L4
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            18 L6 AND US/PC
=> d bib abs 1-18
     ANSWER 1 OF 18 CAPLUS COPYRIGHT 2003 ACS
L7
     2002:354079 CAPLUS
AN
     136:355487
DN
     Preparation of meta-benzamidine derivatives of amino acids or dipeptides
TI
     as serine protease inhibitors
     Liebeschuetz, John Walter; Wylie, William Alexander; Waszkowycz, Bohdan;
IN
     Murray, Christopher William; Rimmer, Andrew David; Welsh, Pauline Mary;
     Jones, Stuart Donald; Roscoe, Jonathan Michael Ernest; Young, Stephen
     Clinton; Morgan, Phillip John
PA
     U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S. Ser. No. 485,678.
SO
     CODEN: USXXCO
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FAN.CNT 13
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             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI GB 1997-18392
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     GB 1998-3173
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                             19980213
     WO 1998-GB2605
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                             19980828
     GB 1999-13823
                             19990614
                        Α
     US 1999-142064P
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     US 2000-485678
                        A2
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     WO 2000-GB2291
                       A2
                             20000613
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GB 1999-18741 A 19990809
GB 1999-29552 A 19991214
GB 1999-29553 A 19991214
MARPAT 136:355487
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OS GI

$$X-X-Y-L-Lp(D)_{n}$$
 R^{3}
 NR^{1}

Title compds. I [R1, R2 = H, OH, alkoxy, alkyl, aminoalkyl, hydroxyalkyl, AB alkoxyalkyl, alkoxycarbonyl, acyloxymethoxycarbonyl or alkylamino optionally substituted by hydroxy, alkylamino, alkoxy, oxo, aryl, cycloalkyl; R3 = R1, R2, amino, halo, cyano, nitro, thiol, alkylthio, alkylsulfonyl, alkylsulfenyl, alkylsulfonamido, alkylaminosulfonyl, haloalkoxy, haloalkyl; X = C, N, O, S, CO, CR1, C(R1)2, NR1 with at least one X being C, CO, CR1 or C(R1)2, with the proviso that if the benzamidine group is unsubstituted and the X-X group is -CH2C(R1)2-, then R1 = H or attached to the alkylene carbon atom by a heteroatom; L = org. linker contg. 1-5 backbone atoms selected from C, N, O and S, or a branched alkyl or cyclic group; Y = N, CR1; YL = cyclic group; Cy = (un)satd., (poly)cyclic, (hetero)cyclic group optionally substituted by groups R3 or Ph optionally substituted by R3; Lp = lipophilic alkyl, heterocyclic, alkenyl, alkaryl, (poly)cycloalkyl, cycloalkenyl, aryl, aralkyl, haloalkyl, or a combination of two or more such groups optionally substituted by oxa, oxo, aza, thio, halo, amino, hydroxy or by R3; D = H bond donor group; n = 0-2], or corresponding compds. in which the (un) substituted amidino group R1R2NC(:NR1) is replaced with an (un) substituted aminomethyl group, or their physiol. tolerable salts were prepd. as serine protease inhibitors useful as antithrombotic agents. 3-Amidino- and 3-(aminomethyl)benzoyl-D-phenylglycine 4aminomethylcyclohexylmethylamide are among 190 compds. synthesized.

Ι

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L7 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2003 ACS
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AN 1999:795787 CAPLUS

DN 132:35700

TI Preparation of benzamidine derivatives as activated blood coagulation factor X inhibitors

IN Nakagawa, Tadakiyo; Sagi, Kazuyuki; Yoshida, Kaoru; Fukuda, Yumiko; Shoji, Masataka; Takehana, Shunji; Kayahara, Takashi; Takahara, Akira

PA Ajinomoto Co., Inc., Japan

SO PCT Int. Appl., 143 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

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PATENT NO.
                    KIND DATE
                                        APPLICATION NO. DATE
                          -----
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PI
    WO 9964392
                    A1
                          19991216
                                        WO 1999-JP3055
                                                       19990608 <--
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
            DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
            JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
            TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
            MD, RU, TJ, TM
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RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 1999-2334476 19990608 <--CA 2334476 AΑ 19991216 AU 1999-40604 19990608 <--AU 9940604 A1 19991230 EP 1999-923959 EP 1086946 20010328 19990608 A1 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI US 2000-731729 20011227 20001208 <--US 2001056123 A1 20020625 US 6410538 B2 US 2002-73985 20020214 <--US 2002107290 A1 20020808 PRAI JP 1998-159627 Α 19980608 Α 19980608 JP 1998-159628 WO 1999-JP3055 W 19990608 US 2000-731729 A1 20001208 os MARPAT 132:35700 GI

$$V^{1}-L-Y$$
 $C=NH$
 $H_{2}N$
 I

Me
$$CO-NH-CH_2-CH_2-O$$
 $C=NH$ H_2N II

AB The title compds. I [L is CH2CH2, etc.; Z1 is CH:CHCOR2, etc.; R2 is OH, etc.; Y is CH:CH, etc.; V1 is, for example, H, (un) substituted benzoyl, etc.; extensive details on V1 are given] are prepd. I are useful as antithrombotics. In an in vitro test for inhibiting activity against activated blood coagulation factor X, the title compd. II.2CF3CO2H showed pIC50 of 8.1.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2003 ACS

AN 1999:691067 CAPLUS

DN 131:310451

TI Preparation of anthranilamides as of cGMP-phosphodiesterase inhibitors

IN Oku, Teruo; Sawada, Kozo; Kuroda, Akio; Inoue, Takayuki; Kayakiri, Natsuko; Sawada, Yuki; Mizutani, Tsuyoshi

PA Fujisawa Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 192 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

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WO 1999-JP2028
                                                                    19990415 <--
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     WO 9954284
                         A1
                                19991028
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              DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
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              CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                                19991108
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     BR 9909781
                                20001219
     EP 1080069
                          A1
                                20010307
                                                 EP 1999-913686
                                                                    19990415
     EP 1080069
                          B1
                                20030319
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                                20010703
                                                 JP 1999-552766
                                                                   19990415
                                                 US 2001-509541
                                                                    20010423 <--
     US 6384080
                          В1
                                20020507
                                                 US 2002-50789
     US 2002193614
                                20021219
                                                                    20020118 <--
                          Α1
PRAI AU 1998-3085
                                19980420
                          Α
     AU 1998-5851
                               19980911
                          Α
     AU 1998-7781
                               19981218
                          Α
     WO 1999-JP2028
                          W
                               19990415
     US 2001-509541
                          Α1
                               20010423
     MARPAT 131:310451
os
GI
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PATENT NO.

KIND

DATE

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AB R4NHZ1CONHZR3 [I; R3 = H, OH, alkoxy, aryl, etc.; R4 = alkoxy, heterocyclyl, (alkyl)amino, etc.; Z = alkylene; Z1 = e-withdrawing group-substituted (halo)-1,2-phenylene] were prepd. Thus, 2-fluoro-5-nitrobenzoic acid was amidated by 1,3-benzodioxole-5-methylamine and the product aminated by 4-aminocyclohexanol to give, after oxidn., title compd. II. Data for biol. activity of I were given.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 4 OF 18 CAPLUS COPYRIGHT 2003 ACS
L7
AN
     1999:626174 CAPLUS
DN
     131:243595
     Preparation of piperidinyl and N-amidinopiperidinyl amino acid derivatives
ΤI
     for inhibition of Factor Xa
     Klein, Scott I.; Guertin, Kevin R.
TN
     Rhone-Poulenc Rorer Pharmaceuticals Inc., USA
PΑ
SO
     PCT Int. Appl., 91 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 5
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APPLICATION NO.

DATE

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19990322 <--
                            19990930
                                            WO 1999-US6224
PΙ
     WO 9948870
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             EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ,
             VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            19990930
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     CA 2325471
                       AA
                                            AU 1999-31094
     AU 9931094
                       A1
                            19991018
                                                             19990322 <--
     EP 1080075
                            20010307
                                            EP 1999-912798
                                                             19990322
                       A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
     BR 9909086
                      Α
                            20010904
                                           BR 1999-9086
                                                             19990322
                                                             19990322
                       T2
                                            JP 2000-537853
     JP 2002507600
                            20020312
                                            US 2001-922906
                                                             20010806 <--
     US 2002016339
                       Α1
                            20020207
PRAI US 1998-79002P
                            19980323
                       A2
     US 1999-273618
                       А3
                            19990322
     WO 1999-US6224
                       W
                            19990322
     MARPAT 131:243595
os
     Compds. R1R2CHCHR3NR7COR4 [R1 = (CH2CH2)mZ3, (CH:CH)mZ3, or (CH2)nZ3,
AB
     where m = 1 or 2; n = 0, 1, or 3; Z3 = substituted aryl, cycloalkyl, or
     cycloalkenyl, (un) substituted heteroaryl, heterocyclyl,
     heterocyclenyl, etc.; R2 = H, CO2R5, COR5, CONR52, CH2OR6, CH2SR6, where R5
     = H, alkyl; R6 = H, (un) substituted alkyl, acyl, aroyl, heteroaroyl; R3 =
     H, (un) substituted alkyl, (CH2CH2) oZ2, (CH:CH) oZ2, (CH2) pZ2, where o = 1
     or 2; p = 0, 1, or 3; Z2 = (un) substituted aryl, heteroaryl, cycloalkyl,
     cycloalkenyl, heterocyclyl, or heterocyclenyl; R4 = alkyl, alkenyl,
     alkynyl, (un) substituted cycloalkyl, heterocyclyl, aryl, heteroaryl, etc.;
     R7 = H, alkyl] were prepd. for inhibiting the activity of Factor Xa.
     Thus, N-(4-phenylbenzoyl)-2-(R)-(1,2,5,6-tetrahydro-3-pyridylmethyl)-3-(R)-
     .beta.-alanine Me ester was prepd. via alkylation/acylation of
     N-(tert-butoxycarbonyl)-3(R)-.beta.-alanine Me ester.
RE.CNT 6
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L7
     ANSWER 5 OF 18 CAPLUS COPYRIGHT 2003 ACS
     1999:184269 CAPLUS
AN
DN
     130:237884
     Preparation of meta-benzamidine derivatives of amino acids or dipeptides
ΤI
     as serine protease inhibitors
     Liebeschuetz, John Walter; Wylie, William Alexander; Waszkowycz, Bohdan;
IN
     Murray, Christopher William; Rimmer, Andrew David; Welsh, Pauline Mary;
     Jones, Stuart Donald; Roscoe, Jonathan Michael Ernest; Young, Stephen
     Clinton; Morgan, Phillip John
     Proteus Molecular Design Ltd., UK
PA
     PCT Int. Appl., 110 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 13
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO. DATE
     _____
                     ____
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ΡI
                      A1
                            19990311
                                           WO 1998-GB2605 19980828 <--
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             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9888757
                       A1
                           19990322
                                           AU 1998-88757
                                                             19980828 <--
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	ΕP	1009	758		A1	2000062	1 EP	1998-94	0430	19980828	<
		R:	DE,	FR,	GB, IT						
	US	2002	05552	22	A 1	2002050	9 US	2001-98	8082	20011119	<
PRAI	GB	1997	-1839	92	A	1997082	9				
	GB	1998	-317	3	Α	1998021	3				
	WO	1998	-GB26	605	W	1998082	8				
	GB	1999	-1382	23	Α	1999061	4				
	US	1999	-1420	064P	P	1999070	2				
	US	2000	-4856	678	A2	2000022	5				
	WO	2000	-GB22	291	A2	2000061	3				
os	MA	RPAT	130:2	2378	84						
GI											

$$X-X-Y-L-Lp(D)_n$$

$$CO-N$$
 $CO-OCH_2CH_2$
 N
 CH_3
 CH_3
 CH_2
 N

Title compds. I [R1, R2 = H, OH, alkoxy, alkyl, aminoalkyl, hydroxyalkyl, AB alkoxyalkyl, alkoxycarbonyl, acyloxymethoxycarbonyl or alkylamino optionally substituted by hydroxy, alkylamino, alkoxy, oxo, aryl, cycloalkyl; R3 = R1, R2, amino, halo, cyano, nitro, thiol, alkylthio, alkylsulfonyl, alkylsulfenyl, alkylsulfonamido, alkylaminosulfonyl, haloalkoxy, haloalkyl; X = C, N, O, S, CO, CR1, C(R1)2, NR1 with at least one X being C, CO, CR1 or C(R1)2, with the proviso that if the benzamidine group is unsubstituted and the X-X group is -CH2C(R1)2-, then R1 = H or attached to the alkylene carbon atom by a heteroatom; L = org. linker contg. 1-5 backbone atoms selected from C, N, O and S, or a branched alkyl or cyclic group; Y = N, CR1; YL = cyclic group; Cy = (un)satd., (poly)cyclic, (hetero)cyclic group optionally substituted by groups R3 or Ph optionally substituted by R3; Lp = lipophilic alkyl, heterocyclic, alkenyl, alkaryl, (poly)cycloalkyl, cycloalkenyl, aryl, aralkyl, haloalkyl, or a combination of two or more such groups optionally substituted by oxa, oxo, aza, thio, halo, amino, hydroxy or by R3; D = H bond donor group; n = 0-2] and their physiol. tolerable salts were prepd. as serine protease inhibitors useful as antithrombotic agents. Synthesis methodol. for prepg. some I was provided, and common starting materials were Fmoc- or Boc-(D)-phenylglycine and m-amidinobenzoic acid. Descriptions of enzyme assays were given, but no enzyme inhibition data was provided for I. To measure the antithrombotic activity, a partial thromboplastin time test assay was done, and for example, m-amidinobenzoyl-D-phenylglycine ester II (prepn. not given, but 1H NMR characterization data provided), at 1.9 .mu.M concn., doubled the clotting

I

II

time.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L7 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2003 ACS
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AN 1999:42575 CAPLUS

DN 130:95393

TI Dibenzoylbenzenediamines as antithrombotic agents

IN Beight, Douglas Wade; Craft, Trelia Joyce; Franciskovich, Jeffry Bernard; Goodson, Theodore, Jr.; Hall, Steven Edward; Herron, David Kent; Klimkowski, Valentine Joseph; Masters, John Joseph; Mendel, David; Milot, Guy; Sawyer, Jason Scott; Shuman, Robert Theodore; Smith, Gerald Floyd; Tebbe, Anne Louise; Tinsley, Jennifer Marie; Weir, Leonard Crayton; Wikel, James Howard; Wiley, Michael Robert; Yee, Ying Kwong

PA Eli Lilly and Company, USA

SO PCT Int. Appl., 120 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT	NO.	K	ND	DATE			A)	PPLI	CATIO	ON NO	o. :	DATE			
ΡI	WO 9900	127	: 1	 \1	1999	0107		W	0 199	 98-U	31342	 24	19980	0626	<	
	W:	AL, A	AM, AT	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,
			EE, ES													
			KR, KZ													
		-	NZ, PL													
		UA, U	UG, US	UZ,	VN,	YU,	ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM
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		FI, F	FR, GB	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,
		CM, C	GA, GN	ML,	MR,	NE,	SN,	TD,	TG							
	AU 9882	706	7	A1	1999	0119		Α	J 19	98-82	2706		19980	0626	<	
	EP 1007	037	7	A1	2000	0614		E	P 19	98-93	32926	5	19980	0626	<	
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		SI, I	LT, LV	FI,	RO											
	JP 2002	510313	3 .	⁷²	2002	0402		J:	P 199	99-50	0582	7	1998	0626		
	US 6417	200]	31	2002	0709		U	S 20	00-44	15970	0	20000	0509	<	
PRAI	US 1997	-50885	5P !	?	1997	0626										
	WO 1998	-US134	424 (7	1998	0626										
os	MARPAT	130:95	5393													
GI																

$$\begin{array}{c|c} \text{NH} & \text{NH} \\ \text{II} & \text{C-NH}_2 \\ \\ \text{NHCO} & \text{CHMe}_2 \\ \end{array}$$

Title compds. were prepd. for use as inhibitors of factor Xa (no data). Thus, 4-amino-3-nitro phenol was silylated and acylated with 3-NCC6H4COCl to give 3-NCC6H4CONHC6H4(OSiMe2CMe3)NO2-4,2 which was reduced to the amine, acylated with 4-Me2CHC6H4COCl and desilylated to give 1-(3-NCC6H4CONH)C6H4(OH)(NHCOC6H4CHMe2-4)-4,2. This compd. was treated with NH2OH and then hydrogenated to give the diamide I.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

Ι

```
AN 1996:653632 CAPLUS
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DN 125:329475

TI Aromatic compounds containing basic and acidic termini useful as fibrinogen receptor antagonists

IN Degrado, William F.; Xue, Chu-biao

PA The Dupont Merck Pharmaceutical Company, USA

SO U.S., 83 pp., Cont.-in-part of U.S. Ser. No. 174,552, abandoned. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

T. T.TA.	CIVI			
	PATENT NO. KIND	DATE	APPLICATION NO.	DATE
ΡI	US 5563158 A	19961008	US 1994-343159	19941122 <
	WO 9518111 A1	19950706	WO 1994-US14244	19941221 <
	W: AU, CA, CZ, FI	, HU, JP, KR,	NO, NZ, PL, SK	
	RW: AT, BE, CH, DE	, DK, ES, FR,	GB, GR, IE, IT, LU,	MC, NL, PT, SE
	AU 9514000 A1	19950717	AU 1995-14000	19941221 <
	US 5691329 A	19971125	US 1996-694043	19960808 <
PRAI	US 1993-174552	19931228		
	US 1994-343159	19941122		
	WO 1994-US14244	19941221		
os	MARPAT 125:329475			
GI				

$$\begin{array}{c|c}
NH & O & R & O \\
\parallel & \parallel & \parallel & \parallel \\
H_2N - C & & U - X & N & R^2
\end{array}$$

Title compds., such as I [U = OCH2, CH2O; X = m-C6H4, 3,5-isoxazolediyl; R = H, Me; R1 = (un)substituted amino; R2 = H, Me, Et] were prepd. for use as platelet aggregation inhibitors. Thus, L-H2NCH2CH(NH2)CO2Me was N-butanesulfonylated, treated with 3-ClC6H4COCl and 4-NCC6H4OH to give L-3-(4-NCC6H4OCH2)C6H4CONHCH2CH(NHSO2Bu)CO2Me which was subjected to aminolysis and ester hydrolysis to give L-3-[4-H2NC(:NH)C6H4OCH2]C6H4CONHCH2CH(NHSO2Bu)CO2H.CF3CO2H (II). II had an IC50 of <10 .mu.M in the fibrinogen binding assay for platelet aggregation.

Ι

- L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2003 ACS
- AN 1996:485770 CAPLUS
- DN 125:142568
- TI Preparation of novel N-imidoyl-[p-[(amidinonaphthylmethyl)amino]phenoxy]pi peridine derivatives and analogs as blood platelet aggregation inhibitors
- IN Hirayama, Fukushi; Koshio, Hiroyuki; Matsumoto, Yuzo; Kawasaki, Tomihisa; Kaku, Seiji; Yanagisawa, Isao
- PA Yamanouchi Pharmaceutical Co., Ltd., Japan
- SO PCT Int. Appl., 156 pp. CODEN: PIXXD2
- DT Patent
- LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9616940 A1 19960606 WO 1995-JP2458 19951201 <-
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,

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                                             CA 1995-2206532
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     EP 798295
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                        В1
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     CN 1167484
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                        В
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                                             NO 1997-2482
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     US 5869501
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                             19990209
                                             US 1997-849391
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                                             FI 1997-2326
                                                               19970602 <--
     FI 9702326
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                             19970602
PRAI JP 1994-299963
                        Α
                             19941202
     JP 1995-105205
                        Α
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     JP 1995-198816
                        Α
                             19950803
                             19951201
     WO 1995-JP2458
                        W
     MARPAT 125:142568
OS
GI
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HN
$$R^2$$
 R^3 R^3 R^3 R^2 R^3 R

$$\begin{array}{c|c} X & & \\ &$$

The title compds. [I; R1 = H or A-W-R4; wherein A = C(:X), COCO, SO2; X = AB O or S; W = a single bond or NR5; R4 = OH, lower alkoxy, (un)substituted lower alkyl, cycloalkyl, aryl, or heteroaryl; R5 = H, carbamoyl, lower alkoxycarbonyl, mono- or dialkylaminocarbonyl, lower alkylsulfonyl, monoor dialkylaminothiocarbonyl, (un)substituted lower alkyl or alkanoyl; R2 = lower alkyl; R3 = H, halo, carboxy, NH2, cyano, NO2, OH, lower alkoxy, lower alkyl, lower alkoxycarbonyl; B = lower alkylene or carbonyl; n = 0or 1], which have an antiplatelet aggregation effect on the basis of the effect of inhibiting activated blood coagulation factor X and are useful as antithrombotic agents, etc., are prepd. Thus, a cyanonaphthalene deriv. (II; R1 = Ac, X = cyano, X1 = Boc) (prepn. given, 128 mg) was dissolved in a mixt. of CH2Cl2 and EtOH , cooled to -20.degree., satd. with HCl(g), stirred at 5.degree. for 4 days, treated with a satd. methanolic NH3, and stirred at 5.degree. for 6 days to give an amidinonaphthalene deriv. II.2HCl (R1 = Ac, X = amidino, X1 = H) (92 mg), which (56 mg) was dissolved in EtOH, treated with 28 mg Et acetimidate

dihydrochloride and 36 mg Et3N, and stirred at room temp. for 2 days to give the title compd. II [R1 = Ac, X = amidino, X1 = C(:NH)Me]. II.2HCl [R1 = SO2NHCO2Et, X = amidino, X1 = C(:NH)Me] at 0.04 .mu.M in vitro prolonged twice the activated blood coagulation factor X-induced aggregation time of human serum as compared to 0.59 .mu.M for a ref. compd.

```
ANSWER 9 OF 18 CAPLUS COPYRIGHT 2003 ACS
L7
AN
    1995:890154 CAPLUS
DN
    123:285548
    Preparation of compounds containing basic and acidic termini useful as
ΤI
    fibrinogen receptor antagonists
    Degrado, William Frank; Xue, Chu-Biao
ΙN
    du Pont de Nemours, E. I., and Co., USA
PΑ
SO
    PCT Int. Appl., 201 pp.
    CODEN: PIXXD2
DT
    Patent
LΑ
    English
FAN.CNT 2
                 KIND DATE
                                       APPLICATION NO. DATE
    PATENT NO.
                                         _____
    WO 9518111
PΙ
                    A1 19950706
                                       WO 1994-US14244 19941221 <--
        W: AU, CA, CZ, FI, HU, JP, KR, NO, NZ, PL, SK
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                       US 1994-343159 19941122 <--
    US 5563158
                    A 19961008
    AU 9514000
                         19950717
                                        AU 1995-14000 19941221 <--
                     A1
PRAI US 1993-174552
                         19931228
    US 1994-343159
                          19941122
    WO 1994-US14244
                         19941221
os
    MARPAT 123:285548
    The title compds. R1UVN(R6e)C(R7)(R8)C(R7a)(R9)R10[R1 = (un)substituted]
AB
    amidinophenyl, (un) substituted amidinocyclohexyl, (un) substituted
    amidinoheterocyclyl, etc.; R6e = H, alkyl, alkenyl, cycloalkyl, aryl,
    etc.; R7, R7a = H, C1-4 alkyl; R8 = (un)substituted alkyl, (un)substituted
    alkenyl, (un) substituted alkynyl, (un) substituted cycloalkyl,
     (un) substituted aryl, etc.; R9 = H, (un) substituted alkenyl,
     (un) substituted alkynyl, etc.; R10 = tetrazolyl, (un) substituted CO2H,
    SO3H, PO3H, etc.; U = (un)substituted (CH2)3, (un)substituted CH2CH:CH,
     (un) substituted CH:CHCH2, etc.; V = heterocyclylcarbonyl or -sulfonyl
    bridging group], useful for the inhibition of platelet aggregation and/or
    for the treatment of thromboembolic disorders, are prepd. Thus,
    N-[3-(4-amidinophenyloxymethyl)benzoyl]-DL--3-aminobutyric acid
    trifluoroacetic acid salt was prepd. in 4 steps from 3-
     (chloromethyl)benzoyl chloride, and demonstrated a IC50 of <10 .mu.M in a
    thrombolytic assay based on human venous blood.
L7
    ANSWER 10 OF 18 CAPLUS COPYRIGHT 2003 ACS
ΑN
    1995:812798 CAPLUS
    123:228897
DN
    Preparation of 1-amidinopiperdine and 4-amidinomorpholine blood platelet
ΤI
    aggregation inhibitions
    Ackermann, Jean; Banner, David; Gubernator, Klaus; Hilpert, Kurt; Schmid,
IN
    Gerard
PΑ
    F. Hoffmann-La Roche AG, Switz.
    Eur. Pat. Appl., 39 pp.
SO
    CODEN: EPXXDW
DT
    Patent
LA
    German
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                        APPLICATION NO. DATE
    -----
                                        ______
    EP 641779
                    A1 19950308
                                       EP 1994-113488
                                                         19940830 <--
PΙ
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

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TW 394760
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                        В
                             20000621
                             19950308
                                             CA 1994-2130864 19940825 <--
     CA 2130864
                        AA
                                             ZA 1994-6671
                                                               19940831 <--
     ZA 9406671
                        Α
                             19950307
     IL 110834
                        A1
                             19980816
                                             IL 1994-110834
                                                               19940901 <--
     AU 9472807
                             19950323
                                             AU 1994-72807
                                                               19940902 <--
                        A1
     AU 684295
                        B2
                             19971211
     HU 70616
                        A2
                             19951030
                                             HU 1994-2527
                                                               19940902 <--
                                             US 1994-300821
                                                               19940902 <--
     US 5559232
                        А
                             19960924
                                             JP 1994-234541
                                                               19940905 <--
     JP 07112970
                        A2
                             19950502
     JP 2614984
                        B2
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                                             NO 1994-3294
                                                               19940906 <--
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                             19990210
                                             RU 1994-32284
                                                               19940907 <--
PRAI CH 1993-2667
                        Α
                             19930907
     CH 1994-2150
                        Α
                             19940705
     MARPAT 123:228897
GI
```

$$\begin{array}{c|c} & M & \\ & \downarrow & \\ G & & \downarrow \\ & E & & \downarrow \\ & A & & C & \\ \end{array}$$

The title compds. [I; A = H, (un) substituted alkyl, (un) substituted AB carbonyl deriv., (un) substituted aminosulfonyl; E = H; G = H, alkyl, alkylcarboxy, alkanoyl, alkoxy, (un) substituted NH2, heteroaryl, etc.; L = H, alkyl, aryl, (un) substituted cycloalkyl, etc.; M = H, (un) substituted alkyl, alkenyl, aryl, heteroaryl, etc.; Q = (un)substituted 3- or 4-(1-amidinopiperidinyl), 2-(amidinomorpholinyl); R = H, alkyl] [e.g., Et [[(S)-3-[(S)-1-(aminoiminomethyl)piperidin-3-ylmethylcarbamoyl]-2benzyloxycarbonylaminopropionyl]cyclopropylamino]acetate hydrochloride; Ki = 1.2 .mu.M thrombin; Ki = 70 .mu.M trypsin], useful for the treatment or prophylaxis of diseases which are caused by thrombin-induced platelet aggregation or the coagulation of fibrinogen in blood plasma, are prepd. and I-contq. formulations presented.

L7ANSWER 11 OF 18 CAPLUS COPYRIGHT 2003 ACS

Ι

ΑN 1994:483062 CAPLUS

DN121:83062

N-Amidinopiperidinyl-(3/4)- or N-amidino-1,4-oxazinyl-(2)-substituted ΤI sulfonamides, process for their preparation, and use as thrombin inhibitors

IN Ackermann, Jean; Banner, David; Gubernator, Klaus; Hilpert, Kurt; Schmid,

PA Hoffmann-La Roche, F., und Co. A.-G., Switz.

Eur. Pat. Appl., 43 pp. SO

CODEN: EPXXDW

DT Patent

LΑ German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	EP 559046	A1	19930908	EP 1993-102767	19930222 <
	EP 559046	B1	20010711		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

	CA	2089972	AA	19930907	CA	1993-2089972	19930219	<
	ΑT	203013	E	20010715	AT	1993-102767	19930222	
	ES	2161217	Т3	20011201	ES	1993-102767	19930222	
	US	5405854	Α	19950411	US	1993-21919	19930224	<
	ZA	9301403	Α	19930906	za	1993-1403	19930226	<
	ΑU	9333916	A1	19930909	ΑU	1993-33916	19930301	<
	ΑU	665230	B2	19951221				
	IL	120727	A1	19980816	IL	1993-120727	19930301	<
	HU	70156	A2	19950928	HU	1993-572	19930302	<
	RO	112863	В3	19980130	RO	1993-294	19930303	<
	BR	9300753	Α	19930908	BR	1993-753	19930304	<
	RU	2133739	C1	19990727	RU	1993-4666	19930304	<
	NO	9300819	A	19930907	NO	1993-819	19930305	<
	CN	1076690	A	19930929	CN	1993-101908	19930305	<
	JР	06025195	A2	19940201	JP	1993-69080	19930305	<
	JР	07080848	B4	19950830				
	PL	173030	B1	19980130	\mathtt{PL}	1993-297960	19930305	<
	CZ	286926	B6	20000816	CZ	1993-346	19930305	<
	US	5578594	Α	19961126	US	1994-361274	19941221	<
	US	5677448	Α	19971014	US	1996-689743	19960813	<
	US	5763604	Α	19980609	US	1997-869558	19970604	<
	FI	9901361	Α	19990614	FI	1999-1361	19990614	<
PRAI	CH	1992-728	Α	19920306				
	CH	1993-180	Α	19930121				
	US	1993-21919	A 3	19930224				
	IL	1993-104893	A3	19930301				

19930305

19941221

19960813

A3

A3

Α3

$$X^{1}$$
 X^{2} X^{2

FI 1993-990

OS GI US 1994-361274

US 1996-689743

MARPAT 121:83062

AB Title compds. ASO2N(Y)MCON(Q)CH2X [I; X = oxazinyl and piperidinyl groups X1 or X2; T = CH2 or O; R1, R2 = H, alkoxycarbonyl; Y = H and in some cases CH2CO2H or SO2A'; A, A' = (hetero)aryl, (cyclo)alkyl, heterocyclyl; Q = H, certain (un)substituted alkyl; M = CH(Z), CH(Z)CH2; Z = various

pendant groups, mostly contg. amide functions) were prepd. as drugs, primarily as inhibitors of thrombin-induced platelet aggregation and fibrinogen coaqulation. For example, condensation of (S)-1-amidino-3-(aminomethyl) piperidine-2HCl with the corresponding acid by the BOP method gave (S) - [N-allyl-[3-[(S)-1-(aminoiminomethyl)piperidin-3ylmethylcarbamoyl]-2-(2-naphthylsulfonylamino)propionyl]amino]acetic acid Et ester hydrochloride, which underwent hydrolysis by aq. NaOH and hydrogenation over Pd/C to give title compd. (S)-[[3-[(S)-1-(aminoiminomethyl)piperidin-3-ylmethylcarbamoyl]-2-(2naphthylsulfonylamino)propionyl]propylamino]acetic acid (II). I showed high specificity for inhibition of thrombin over other serine proteases, with II having Ki = 0.22 and 4300 nM for thrombin and trypsin, resp. (ratio = 19,545). Approx. 200 I were prepd. in 73 synthetic examples.

```
L7
    ANSWER 12 OF 18 CAPLUS COPYRIGHT 2003 ACS
AN
    1994:271189 CAPLUS
DN
     120:271189
    Aspartic acid derivatives, their preparation, and use as drugs
ΤI
     Klingler, Otmar; Zoller, Gerhard; Just, Melitta; Jablonka, Bernd
IN
PA
     Cassella AG, Germany
SO
     Ger. Offen., 16 pp.
     CODEN: GWXXBX
DT
    Patent
    German
LΑ
FAN.CNT 1
                                       APPLICATION NO. DATE
     PATENT NO. KIND DATE
```

ΡI	DE	4212304	A1	19931014	DE 1992-4212304 19920	0413 <
	ΕP	565896	A2	19931020	EP 1993-104415 19930	0318 <
	ΕP	565896	A 3	19940112		
		R: AT, BE, 0	CH, DE,	, DK, ES,	R, GB, IT, LI, NL, SE	
	ΕP	784058	A1	19970716	EP 1996-102404 19930	0318 <
		R: AT, BE,	CH, DE,	, DK, ES,	R, GB, IT, LI, NL, SE	
	CZ	290280	B6	20020717	CZ 1993-494 19930	0324
	US	5399570	A	19950321	US 1993-36923 19930	0325 <
	ΑU	9336836	A1	19931014	AU 1993-36836 19930	0408 <
	AU	659299	B2	19950511		
	CA	2093770	AA	19931014	CA 1993-2093770 19930	0408 <
	ZA	9302535	Α	19931104	ZA 1993-2535 19930	0408 <
	IL	105355	A1	19980310	IL 1993-105355 19930	0409 <
	SK	282125	B6	20011106	SK 1993-334 19930	0409
	JΡ	07109256	A2	19950425	JP 1993-84946 19930	0412 <
	HU	64016	A2	19931129	HU 1993-1071 19930	0413 <
	HU	218206	В	20000628		
PRAI	DE	1992-4212304	Α	19920413		
	ΕP	1993-104415	A 3	19930318		
OS	MΔI	DDT 120.27118	9			

MARPAT 120:271189 OS

L7

Title derivs. H2NC(:NH)XNHCH(COR)CH2CO2H [I; X = NH(CH2)nC6H4CONMeCH2CO, AΒ NH(CH2)mZCONMeCH2CO (Z = cyclohexanediyl), NH(CH2)mC6H4OCH2CO, or NYAC6H4CO [Y = 2-9 CH2 groups bound to N to form a ring, A = (CH2)m, O, bond]; n = 1-4; m = 0-4; R = OH or NH2 or various derivs. of them] were prepd. (15 examples). I inhibit the binding of fibrinogen, fibronectin, and von Willebrand factor to integrin receptors, and are thus claimed as useful for inhibiting thrombocyte aggregation, metastasis of carcinoma cells, and the formation of osteoclasts on bone surface (no data). Thus, condensation of p-(4-piperidinylmethyl)benzoic acid with nitro-S-methylisothiourea gave 89% p-[4-(nitroamidinopiperidinyl)methyl]be nzoic acid, which underwent DCC-mediated coupling with H2N-Asp(OCH2Ph)-Val-OCH2Ph (95%) followed by hydrogenolysis (94%) to give L,L-I [X = N[(CH2)2]2CHCH2C6H4CO-4, R = OH], i.e. p-[4-(Namidinopiperidinyl) methyl] benzoyl-L-aspartyl-L-valine.

AN 1993:517098 CAPLUS

DN 119:117098

Preparation of 2-pyrrolidinone-3-acetates and analogs as cell aggregation TI inhibitors

Austel, Volkhard; Eisert, Wolfgang; Himmelsbach, Frank; Linz, Guenter; IN Mueller, Thomas; Pieper, Helmut; Weisenberger, Johannes

PA Thomae, Dr. Karl, G.m.b.H., Germany

SO Eur. Pat. Appl., 73 pp.

CODEN: EPXXDW

DT Patent

German LΑ

FAN.	CNT 1			
	PATENT NO.	KIND.	DATE	APPLICATION NO. DATE
ΡI	EP 528369	A2	19930224	EP 1992-113877 19920814 <
FI		A3		11 1332 113077 13320011
	EP 528369			
				FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
	DE 4127404	A 1	19930225	
	AT 186906	E	19991215	AT 1992-113877 19920814 <
	CA 2076311	AA	19930220	CA 1992-2076311 19920818 <
	NO 9203235	Α	19930222	NO 1992-3235 19920818 <
	AU 9221119	A1	19930225	AU 1992-21119 19920818 <
	AU 654372	B2	19941103	
	JP 06025227		19940201	
	ZA 9206205	Α	19940218	
	IL 102847		19961114	
	US 5455348		19951003	US 1993-173603 19931223 <
PRAI			19910819	
	US 1992-929870		19920814	
os	MARPAT 119:11709	8		
GI				

$$H_2N$$
 OCH_2
 OCH_2

EYAX1X2X3X4X5B [A = (substituted) bivalent (oxo)alkyleneimino; B = NH2, AB C(:NH)NH2, NHC(:NH)NH2, etc.; E = CO2H, alkoxycarbonyl, etc.; X1 = bond, alkylene; X2 = bond, O, NH, SO2NH, etc.; X3, X5 = (hetero)cycloalkylene, (hetero)arylene, etc.; X4 = bond, O, CH2, CO, NH, etc.; X3X4X5 = phenylene, (CH2)3-5, etc.; Y = alkylene, NHCH2, OCH2, etc.] were prepd. Thus, 4-(5-cyano-2-pyridyl)phenol (prepn. given) was condensed with (3S,5S)-3-[(tert-butyloxycarbonyl)methyl]-5-[(methanesulfonyloxy)methyl]-2pyrrolidinone and the product converted in 2 steps to title compd. (3S,5S)-I which had EO50 of 0.06 .mu.M against collagen-induced platelet aggregation in vitro.

- ANSWER 14 OF 18 CAPLUS COPYRIGHT 2003 ACS L7
- 1992:612971 CAPLUS AN
- DN 117:212971
- Preparation of tripeptides as protease inhibitors ΤI
- Abe, Yoshihito; Nagasawa, Takeshi; Kuroiwa, Katsumasa; Yaginuma, Katsuhiro IN
- Nitto Boseki K. K., Japan PA
- SO Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DT **Patent**LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 04089498	A2	19920323	JP 1990-204492	19900801 <
	JP 08013834	B4	19960214		
	US 5153176	Α	19921006	US 1991-737708	19910730 <
PRAI	JP 1990-204492		19900801		

OS MARPAT 117:212971

(D)-ANHCH[(CH2)4NHB]CO-Pro-X-H [I; A, B = (un)substituted arenesulfonyl, AΒ alkanesulfonyl, aroyl, acyl, cycloalkanesulfonyl, alkyloxycarbonyl, alkyl, aryl, or N-contq. heterocyclylsulfonyl, CHO, H, adamantyl, norbornyl; A = B .noteq. H; X = L-, D-, or DL-Arg], useful for treatment of trypsin-like serine protease-related diseases, e.g., inflammation, bleeding, allergy, nephritis, and ulcer, are prepd. Thus, esterification of Z-D-Lys(Tos)-OH with 2-mercapto-4,6-dimethylpyrimidine in the presence of DCC in EtOAc and coupling of the resulting active thiol ester with proline in the presence of Et3N gave Z-D-Lys(Tos)-Pro-OH which was coupled with H-Arg(Z)-OH .delta.-lactam.HCl (prepn. given) via formation of an active ester with ClCO2CHMe2 to give Z-D-Lys(Tos)-Pro-Arg(Z)-OH .delta.-lactam. Redn. of this with LiALH4 in THF at -30.degree. to Z-D-Lys(Tos)-Pro-Arg(Z)-H followed by hydrogenolysis over Pd black in 1N H2SO4-85% aq. MeOH gave H-D-Lys(Tos)-Pro-Arg-H.H2SO4. I.1/2H2SO4 (A = Me2CHO2C, B = Tos, X = Arg) in vitro showed IC50 (.times. 10-7) of 0.59, 4.4, 0.22, 0.37, 3.5, and 14 against plasmin, thrombin, trypsin, kallikrein, factor Xa, and urokinase.

- L7 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2003 ACS
- AN 1992:214908 CAPLUS
- DN 116:214908
- TI Preparation of (amidinoheterocyclylmethyl)amino acid sulfonamides and related compounds as thrombin inhibitors
- IN Ackerman, Jean; Banner, David; Gubernator, Klaus; Hadvary, Paul; Hilpert, Kurt; Mueller, Klaus; Labler, Ludvik; Schmid, Gerard; Tschopp, Thomas; et al.
- PA Hoffmann-La Roche, F., und Co. A.-G., Switz.
- SO Eur. Pat. Appl., 41 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1 KIND DATE APPLICATION NO. DATE PATENT NO. ______ ____ _____ PΙ EP 468231 A2 19920129 EP 1991-110928 19910702 <--EP 468231 **A**3 19920401 B1 19940921 EP 468231 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE CA 1991-2044636 19910614 <--CA 2044636 AA 19920106 US 1991-719429 US 5260307 Α 19931109 19910624 <--ZA 9105028 Α 19920325 ZA 1991-5028 19910628 <--A1 AU 9179490 19920109 AU 1991-79490 19910701 <--B2 19940623 AU 650458 HU 1991-2206 19910701 <--HU 58288 A2 19920228 HU 217815 В 20000428 A2 JP 1991-185774 19910701 <--JP 04230363 19920819 JP 07030022 B4 19950405 IL 98690 **A1** IL 1991-98690 19910701 <--19960514 IL 1991-112712 IL 112712 A1 19960912 19910701 <--ES 2061125 Т3 19941201 ES 1991-110928 19910702 <--NO 1991-2626 19910704 <--NO 9102626 Α 19920106 В NO 177704 19950731 С NO 177704 19951108

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19910705 <--
     FI 9103282
                       Α
                            19920106
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                                           US 1993-77476
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     FI 9601629
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                                                            19960917 <--
                       Α
PRAI CH 1990-2250
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                            19910502
     CH 1991-1315
                       Α
    US 1991-719429
                       A3
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                       A3
                            19910701
     IL 1991-98690
                            19910705
     FI 1991-3282
                       Α
                            19930615
    US 1993-77476
                       А3
    US 1994-343168
                       Α3
                            19941122
    US 1995-473060
                       Α3
                            19950607
OS
    MARPAT 116:214908
GI
```

Title compds. [I; R, R3 = (hetero)aryl, heterocyclyl; T = CH2, O; L = NH, O; N(X)M = N(SO2R3)CH2, (substituted) isoquinolinylene; X = H, CH2CO2H, alkoxycarbonylmethyl, alkyleneiminocarbonylmethyl, (alkylated) CH2CONH2; M = R1CH2CH, R1COCH2CH, PhCH2O2CNHCH2CH, etc.; R1 = (hetero)aryl, heterocyclyl, cycloalkyl], were prepd. Thus, tert-Bu R-4-hydroxymethyl-2,2-dimethyl-3-oxazolidinecarboxylate was successively tosylated, condensed with 2-indolinone using NaH in DMF, and treated with 2N HCl to give 1-[(R)-2-amino-3-hydroxypropyl]-2-indolinone. This was acylated with 2-naphthylsulfonyl chloride followed by Jones oxidn. to give N-(2-naphthylsulfonyl)-3-(2,3-dioxo-1-indolinyl)-D-alanine. This was converted to (R)-N-[(RS)-1-aminido-3-piperidinylmethyl]-.alpha.-(2-naphthylsulfonamido-2,3-dioxo-1-indolinepropionamide acetate. The latter inhibited thrombin with Ki = 8.55 nM and trypsin with Ki = 20,075.

L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2003 ACS

I

AN 1991:492947 CAPLUS

DN 115:92947

TI Preparation of N-amidobenzoyl-.beta.-alanines and analogs as fibrinogen antagonists and antitumor agents

IN Alig, Leo; Edenhofer, Albrecht; Mueller, Marcel; Trzeciak, Arnold; Weller, Thomas

PA Hoffmann-La Roche, F., und Co. A.-G., Switz.

SO Eur. Pat. Appl., 28 pp. CODEN: EPXXDW

DT Patent

LA German

FAN. CNT 1

L'AM	CIVI				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 372486	A2	19900613	EP 1989-122396	19891205 <
	EP 372486	A3	19910612		
	EP 372486	B1	19940601		
	R: AT, BE,	CH, DE	, ES, FR, GB,	GR, IT, LI, LU, NL	, SE
	US 5039805	Α	19910813	US 1989-440949	19891124 <

	CA	2004127	AA	19900608	CA	1989-2004127	19891129	<
	ZA	8909210	Α	19900829	ZA	1989-9210	19891201	<
	$_{ m IL}$	92518	A1	19941129	$_{ ext{IL}}$	1989-92518	19891201	<
	HU	53068	A2	19900928	HU	1989-6350	19891204	<
	HU	206192	В	19920928				
	ΑU	8945865	A1	19901101	UA	1989-45865	19891204	<
	AU	648751	B2	19940505				
	ΑT	106389	E	19940615	AΤ	1989-122396	19891205	<
	ES	2054995	T 3	19940816	ES	1989-122396	19891205	<
	DK	8906153	A	19900609	DK	1989-6153	19891206	< -: -
	DK	171888	B1	19970804				
	NO	8904919	Α	19900611	ИО	1989-4919	19891207	<
	JΡ	02223543	A2	19900905	JP	1989-320391	19891208	<
	JP	06010179	B4	19940209				
PRAI	CH	1988-4543		19881208				
	CH	1989-3703		19891011				
	ΕP	1989-122396		19891205				
os	MAI	RPAT 115:92947						
GI								

The title compds. [I; A = R1CONH(CH2)i; G = (CH2)jCONHCHR1CH2CO2H; R1 = CHRa(CH2)nNHR6, T1C6H4CH2NHRc, TmC6H4(NH)pC(:NH)NH2, aminomethylcyclohexyl, etc.; Ra = H, NH2, alkoxycarbonylamino, NHCO2CH2Ph, NHCOCH2NYCH2CH2NHY; R6 = H, amidino, C(:NH)(CH2)hMe; Rc = H, amidino; R2 = H, me, OMe, NO2, halo, etc.; R3 = H, CONH2, CORf, CO2Rg; Rf= N-linked amino acid residue; Rg = H, alkyl; T = CH2, CH:CH, CHRdCH2; Rd = groups cited for Ra, NHBz, NHCOC6H4N3, arylsulfonylamino; Y = H, CO2CMe3, CO2CH2Ph; i, j, l, m, p = 0,1; k = 0-3; n = 1-6] were prepd. Thus, RCl [R = 4-[H2N(HN:)C]C6H4CO] was condensed with 3-(R4HN)C6H4CONHCH2CH2CO2R5 (II; R4 = H, R5 = CH2Ph) to give, after hydrogenolysis, II (R4 = R, R5 = H) which had IC50 of 10-4 .mu.M against fibrinogen binding to glycoprotein IIb/IIIa.

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2003 ACS

AN 1981:192706 CAPLUS

DN 94:192706

TI Peptidyl-NG-carboxyargininealdehydes

IN Bajusz, Sandor; Szell, Erzesebet; Barabas, Eva; Bagdy, Daniel

PA Richter, Gedeon, Vegyeszeti Gyar Rt., Hung.

SO Ger. Offen., 37 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

L WIA	CIVI				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	DE 3000225	A1	19800724	DE 1980-3000225	19800104 <
	DE 3000225	C2	19891019		
	HU 19372	0	19810128	HU 1979-G01435	19790104 <
	HU 177098	P	19810728		
	IL 58978	A1	19820930	IL 1979-58978	19791217 <
	ZA 7906895	Α	19801231	ZA 1979-6895	19791219 <
	BE 880844	A1	19800624	BE 1979-9666	19791224 <
	JP 55122749	A2	19800920	JP 1979-168478	19791226 <
	JP 59051936	B4	19841217		

AU	7954207	A1	19800710	AU	1979-54207	19791227	<
AU	533343	B2	19831117				
FR	2445826	A1	19800801	FR	1979-31744	19791227	<
FR	2445826	B1	19841123				
NO	7904327	Α	19800707	NO	1979-4327	19791228	<
ИО	151085	В	19841029				
NO	151085	С	19850206				
US	4316889	Α	19820223	US	1979-108224	19791228	<
FI	8000008	A	19800705	FI	1980-8	19800102	<
FI	67539	В	19841231		•		
FI	67539	C	19850410				
SE	8000032	Α	19800705	SE	1980-32	19800102	<
SE	448461	В	19870223				
SE	448461	С	19870702				
AT	8000012	Α	19830115	AT	1980-12	19800102	<
AT	372076	В	19830825				
DK	8000038	Α	19800705	DK	1980-38	19800103	<
DK	149895	В	19861020				
DK	149895	С	19870421				
CH	643820	Α	19840629	CH	1980-7	19800103	
SU	1366062	A3	19880107	SU	1980-2861956	19800103	<
NL	8000040	Α	19800708	NL	1980-40	19800104	<
NL	191537	В	19950501				
NL	191537	С	19950904				
	487464	A1	19801101		1980-487464	19800104	
	1133897	A1	19821019	CA	1980-343115	19800104	<
•	1979-GO1435		19790104				
GI							

AB R-X-Pro-NHCH(CHO)(CH2)3NHC(:NH)NHCO2H [I; R = H, Bz, Me3CO2C (BOC); X = D-Phe, D-allo-Ile, .beta.-phenyl-D-lactic acid residue] were prepd. as blood-clotting inhibitors. Thus, BOC-Arg-OH was treated with Z-Cl (Z = PhCH2O2C) to give 73.5% BOC-Arg(Z)-OH, which was cyclized by ClCO2CH2CHMe2 in THF to give 67% of the corresponding arginine lactam. The latter was BOC-deblocked by HCl and then coupled to Z-D-Phe-Pro-OH by ClCO2CH2CHMe2 to give 88% of the protected tripeptide lactam, which was reduced by LiAlH4 to give 73% of the corresponding tripeptide aldehyde. The latter was Z-deblocked by hydrogenolysis to give 96.4% I (R = H, X = D-Phe) (II). The cyclic form of II, cyclic carbinol III, was also claimed. Tabular data for the above biol. activity of I are given.

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L7 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2003 ACS
```

AN 1974:108545 CAPLUS

DN 80:108545

TI [(Aminoalkylidene)amino]triiodobenzamide derivatives for x-ray contrast medium

IN Obendorf, Werner; Lindner, Irmgard; Schwarzinger, Ernst; Krieger, Josef

PA Lentia G.m.b.H., Chem. u. Pharm. Erzeugnisse-Industriebedarf

SO Ger. Offen., 35 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1
PATENT NO.

KIND DATE

APPLICATION NO. DATE

ΡI	DE 2235935	A1	19740207	DE	1972-2235935	19720721 <
	DE 2235935	C3	19790726			
	DE 2235935	B2	19781130			
	FI 61872	В	19820630	FI	1973-2139	19730704 <
	FI 61872	С	19821011			
	GB 1443062	A	19760721	GB	1973-33382	19730712 <
	HU 166753	P	19750528	HU	1973-OE205	19730713 <
	ZA 7304829	A	19740626	ZA	1973-4829	19730716 <
	DD 107908	Z	19740820	DD	1973-172320	19730717 <
	CA 1002522	A1	19761228	CA	1973-176658	19730717 <
	FR 2193621	A1	19740222	FR	1973-26277	19730718 <
	CH 590061	Α	19770729	CH	1973-10592	19730719 <
	CS 191903	P	19790731	CS	1973-5198	19730719 <
	NL 7310136	Α	19740123	NL	1973-10136	19730720 <
	NL 163207	В	19800317			
	NL 163207	С	19800815			
	US 3890318	Α	19750617	US	1973-381337	19730720 <
	IT 991822	Α	19750830	IT	1973-69187	19730720 <
	PL 85383	P	19760430	$_{ m PL}$	1973-164196	19730720 <
	SU 514566	D	19760515	SU	1973-1948994	19730720 <
	RO 62908	P	19780215	RO	1973-75545	19730720 <
	SE 402101	В	19780619	SE	1973-10162	19730720 <
	SE 402101	С	19780928			
	RO 63770	B1	19780915	RO	1973-83230	19730720 <
	RO 64154	P	19790115	RO	1973-83226	19730720 <
	JP 49055639	A2	19740530	JP	1973-80842	19730721 <
	JP 55037548	B4	19800929			
	ES 417136	A1	19760316	ES	1973-417136	19730721 <
	BE 806667	A1	19740429	BE	1973-137192	19731029 <
	US 4025550	Α	19770524	US	1975-562933	19750328 <
PRAI	DE 1972-2235935		19720721			
	FR 1973-26277		19730718			
	US 1973-381337		19730720			

GI For diagram(s), see printed CA Issue.

Fifty-nine triiodobenzamides [I; R = H, Me, Et, Pr, CHMe2, CH2, Ch:CH2, (CH2)30Me, Ph, or CH2Ph; R1 = Me, Et, CH2CH:CH2 or QCO2H with Q = CH2CHMe, CHMeCH2, (CH2)n, n = 1, 2, or 5; or NRR1 = morpholino; R2 = H, Me, Et, or (CH2)2CO2H; R3 = H, Me, or Et; R4 = Me, Et, or Ph; or NR3R4 = piperidino or morpholino; R5 = H, CO2H, or CONHMe], useful as x-ray contrast medium esp. for the cholecystog., were prepd. by reaction of II (X = Cl, Z = H) with POCl3 and R2CONR3R4 (III) and subsequently with RR1NH (IV) and in the case of the reaction with IV (R1 = QCO2Me) followed by sapon., by reaction of II (X = NRR1, Z = H) with POCl3 and III, or by reaction of II (X = NRR1, Z = COR2) with PCl5 and R3R4NH optionally followed by sapon.

AN 1999:529820 CAPLUS

DN 131:295103

TI Design and Structure-Activity Relationships of Potent and Selective Inhibitors of Blood Coagulation Factor Xa

AU Ewing, William R.; Becker, Michael R.; Manetta, Vincent E.; Davis, Roderick S.; Pauls, Henry W.; Mason, Helen; Choi-Sledeski, Yong Mi; Green, Daniel; Cha, Don; Spada, Alfred P.; Cheney, Daniel L.; Mason, Jonathan S.; Maignan, Sebastien; Guilloteau, Jean-Pierre; Brown, Karen; Colussi, Dennis; Bentley, Ross; Bostwick, Jeff; Kasiewski, Charles J.; Morgan, Suzanne R.; Leadley, Robert J.; Dunwiddie, Christopher T.; Perrone, Mark H.; Chu, Valeria

CS Departments of Cardiovascular Drug Discovery and New Leads Generation, Rhone-Poulenc Rorer, Collegeville, PA, 19426-0107, USA

SO Journal of Medicinal Chemistry (1999), 42(18), 3557-3571 CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

OS CASREACT 131:295103

The discovery of a series of non-peptide factor Xa (FXa) inhibitors incorporating 3-(S)-amino-2-pyrrolidinone as a central template is described. After identifying compd. 4, improvements in in vitro potency involved modifications of the lipophilic group and optimizing the angle of presentation of the amidine group to the S1 pocket of FXa. These studies ultimately led to compd. RPR120844, a potent inhibitor of FXa (Ki = 7 nM) which shows selectivity for FXa over trypsin, thrombin, and several fibrinolytic serine proteinases. RPR120844 is an effective anticoagulant in both the rat model of FeC12-induced carotid artery thrombosis and the rabbit model of jugular vein thrombus formation.

IT 247030-99-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(design and structure-activity relationships of potent and selective inhibitors of blood coagulation factor Xa in relation to antithrombotic activity)

RN 247030-99-5 CAPLUS

CN Benzenecarboximidamide, 3-[[3-[2-(2-naphthalenyl)ethyl]-1H-indol-1-yl]methyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 247030-98-4 CMF C28 H25 N3

$$H_2N-C$$
 CH_2
 CH_2
 CH_2-CH_2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 2001:872229 CAPLUS

DN 136:210039

TI Novel bicyclic lactam inhibitors of thrombin: potency and selectivity optimization through P1 residues

AU Levesque, Sophie; St. Denis, Yves; Bachand, Benoit; Preville, Patrice; Leblond, Lorraine; Winocour, Peter D.; Edmunds, Jeremy J.; Rubin, J. R.; Siddiqui, M. Arshad

CS Shire BioChem Inc., Laval, QC, H7V 4A7, Can.

SO Bioorganic & Medicinal Chemistry Letters (2001), 11(24), 3161-3164 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

AB Peptidomimetic inhibitors of thrombin lacking the important Ser195-carbonyl interaction have been prepd. The binding energy lost after the removal of the activated carbonyl was recaptured through a series of modifications of the Pl residues of the bicyclic lactam inhibitors. Selected substituted compds. displayed useful pharmacol. profiles both in vitro and in vivo.

IT 401947-02-2P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel peptidomimetic bicyclic lactam inhibitors of thrombin and their potency and selectivity optimization through P1 residues)

RN 401947-02-2 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]octahydro-4-oxo-2-[(phenylmethyl)sulfonyl]-, (6S,8aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT



ENTER (DIS), GRA, NOD, BON OR ?:end L5 STRUCTURE CREATED

=> s 15 ful

FULL SEARCH INITIATED 10:19:31 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 276 TO ITERATE

100.0% PROCESSED 276 ITERATIONS 1 ANSWERS

SEARCH TIME: 00.00.01

L6 1 SEA SSS FUL L5

=> d

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 261367-55-9 REGISTRY

CN 3-Pyridinecarboxamide, N-[(3R)-4-[[2-[[(3S)-1-(aminoiminomethyl)-2-hydroxy-

3-piperidinyl]amino]-2-oxoethyl]amino]-4-oxo-3-

[[(phenylmethyl)sulfonyl]amino]butyl]-6-hydroxy- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H34 N8 O7 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1962 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

AN 2000:9751 CAPLUS

DN 132:216542

TI Exploratory solid-phase synthesis of factor Xa inhibitors: discovery and application of P3-heterocyclic amides as novel types of non-basic arginine surrogates

AU Ho, Jonathan Z.; Levy, Odile E.; Gibson, Tony S.; Nguyen, Khanh; Semple, J. Edward

CS Department of Medicinal Chemistry, Corvas International, Inc., San Diego, CA, 92121, USA

SO Bioorganic & Medicinal Chemistry Letters (1999), 9(24), 3459-3464 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

As series of novel FXa inhibitors I (n = 0-2), II (R = 3-bromo-5-pyridinyl, 1-isoquinolinyl, 3-quinolinyl, 2-hydroxy-5-pyridinyl, 3-pyridinyl, 4-cinnolinyl, 2-quinolinyl, 2-hydroxy-3-quinoxalinyl, Ph, 2-pyridinyl) and III (R = 2-pyrazinyl, 2-methyl-5-pyrazinyl, 3-pyrazoyl, 3-bromo-5-pyridinyl, 1-isoquinolinyl, 3-quinolinyl) that feature heterocyclic carboxamides attached to a (D)-2,4-diaminobutyric acid side chain was discovered. These neutral amide derivs. serve as novel P3 D-arginine mimics. Pyrazine carboxamide scaffolds afforded the most potent FXa inhibitors [e.g., I (n = 1) IC50 = 4.6 nM]. The synthesis and biol. activity of I, II and III are reported.

IT 261367-55-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(solid-phase synthesis and biol. activity of diaminobutyrate heterocyclic amides as factor Xa inhibitors)

RN 261367-55-9 CAPLUS

CN 3-Pyridinecarboxamide, N-[(3R)-4-[[2-[[(3S)-1-(aminoiminomethyl)-2-hydroxy-3-piperidinyl]amino]-2-oxoethyl]amino]-4-oxo-3-[[(phenylmethyl)sulfonyl]amino]butyl]-6-hydroxy-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:716677 CAPLUS

DN 132:64081

TI The synthesis and anti-MRSA activity of amidinium-substituted 2-dibenzofuranylcarbapenems

AU Laub, Joanne B.; Greenlee, Mark L.; DiNinno, Frank; Huber, Joann L.; Sundelof, Jon G.

CS Department of Medicinal Chemistry, Merck Research Laboratories, Rahway, NJ, 07065, USA

SO Bioorganic & Medicinal Chemistry Letters (1999), 9(20), 2973-2976 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

GΙ

$$Q1 = N \qquad Q2 = N \qquad Q3 = N \qquad NH$$

$$R2 \qquad Me \qquad NH$$

$$N \qquad NH$$

AB A series of amidinium-substituted 2-dibenzofuranylcarbapenem analogs I [R = C(=NH)NH2, C(=NH)NHMe, C(=NH)NMe2, Q1, Q2, Q3; R1 = CO2-, CO2H; R2 = H, Me] with potent activity against MRSA has been synthesized via a Stille cross-coupling reaction. I show reduced serum protein binding and improved in vivo efficacy as a consequence of the pos. charged amidinium substituent.

I

R

IT 253268-64-3P 253268-65-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and anti-MRSA activity of amidinium-substituted 2-dibenzofuranylcarbapenems)

RN 253268-64-3 CAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[4-6] [imino(methylamino)methyl]-2-dibenzofuranyl]-7-oxo-6-[(1R)-1-[(trimethylsilyl)oxy]ethyl]-, (4-nitrophenyl)methyl ester, (5R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 253268-65-4 CAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[4-

```
[(dimethylamino)iminomethyl]-2-dibenzofuranyl]-7-oxo-6-[(1R)-1-
[(trimethylsilyl)oxy]ethyl]-, (4-nitrophenyl)methyl ester, (5R,6S)- (9CI)
(CA INDEX NAME)
```

Absolute stereochemistry.

IE, SI, LT, LV, FI, RO

Α

В1

Α

20020201

20020219

20000626

NZ 504324

US 6348478

NO 2000002588

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L20
     ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
AN
     1999:354476 CAPLUS
DN
     131:18840
     Preparation of biphenylamidine derivatives as factor Xa inhibitors
ΤI
     Takano, Yasunobu; Nakada, Tomohisa; Hara, Takayuki; Sugiura, Satoshi;
ΙN
     Tsutsumi, Takaharu; Takarada, Reiko; Takazawa, Yoshiharu
     Teijin Limited, Japan
PΑ
     PCT Int. Appl., 82 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     Japanese
LΑ
FAN.CNT 1
                      KIND DATE
                                            APPLICATION NO. DATE
     PATENT NO.
                                            _____
     WO 9926919
                                            WO 1998-JP5210
                                                              19981119
PΙ
                      A1
                             19990603
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,
             KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2310330
                             19990603
                                            CA 1998-2310330
                                                              19981119
                       AΑ
     AU 9911741
                       Α1
                             19990615
                                            AU 1999-11741
                                                              19981119
     AU 736112
                             20010726
                       B2
                                            EP 1998-954748
                                                              19981119
     EP 1043311
                       A1
                             20001011
```

AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

NZ 1998-504324

US 2000-554449

NO 2000-2588

19981119

20000515

20000519

PRAI JP 1997-319696 A 19971120 WO 1998-JP5210 W 19981119 OS MARPAT 131:18840 GI

$$Q^{1} = -(CH_{2})_{n} + Z$$

$$R^{2}$$

$$R^{2}$$

ΙI

$$HN = C$$
 NH_2
 $CH_2 - O$
 NH_2
 $CO - OMe$

Ι

The title compds. I [A = amidino; R1 = H, amino, nitro, etc.; X = carboxyl, etc.; Y = Q1, etc.; n = 0 -1; Z = CH, N; R2 = H, amino, etc.; R3 = H, alkyl; R4 = H, F, etc.] are prepd. For example, the title compd. II was prepd. Compds. of this invention in vitro showed IC50 of 0.1 .mu.M to 100 .mu.M against factor Xa.

IT 226070-31-1P 226070-32-2P 226070-33-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of biphenylamidine derivs. as factor Xa inhibitors)

RN 226070-31-1 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-(aminoiminomethyl)-5[(phenylmethoxy)methyl]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & NH \\ \parallel & \parallel \\ C-NH_2 \\ \hline Ph-CH_2-O-CH_2 \\ \end{array}$$

RN 226070-32-2 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-(aminoiminomethyl)-5-[[[4-(1-methylethyl)phenyl]methoxy]methyl]-, methyl ester (9CI) (CA INDEX NAME)

$$i-Pr$$
 CH_2-O-CH_2
 $C-NH_2$
 NH
 $C-OMe$

RN 226070-33-3 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-(aminoiminomethyl)-5-[[[3-(aminomethyl)phenyl]methoxy]methyl]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{N-CH}_2 \\ \text{CH}_2\text{-O-CH}_2 \\ \text{C-OMe} \\ \text{O} \end{array}$$

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:165225 CAPLUS

DN 126:157340

TI Preparation of 2-(dibenzofuranyl)- and 2-(dibenzothienyl)-carbapenems for use as antibiotics

IN Greenlee, Mark L.; Laub, Joanne B.

PA Merck and Co., Inc., USA

SO Brit. UK Pat. Appl., 77 pp. CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

GI

FAN.CNI I							
PATEN	IT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI GB 23	301820	A1	19961218	GB 1996-11166	19960529		
PRAI US 19	95-476302		19950607				
OS MARPA	AT 126:15734	0					

$$R^{2}$$
 H R $(R?)$ m $(R?)$ n $(R?)$ n $(R?)$ n

Carbapenem compds. I [R = H or CH3; R1 and R2 = independently H, Me, Et, (Me)2CH, HOCH2, MeCH(OH), (Me)2C(OH), FCH2CH(OH), F2CHCH(OH), F3CCH(OH), MeCF2, or (Me)2C(F); X = O, S, S(O) or S(O)2; A = carboximidamide, 1-imidazolium, 1-pyridinium, 2-pyrimidinyl; Rc = substituent such as alkyloxy, alkylthio, tetrazolyl, halo, haloalkyl, OH, carbamoyloxy, amino, acyl; m and n = independently an integer from 0 to 4; M = H, alkali metal, ester, ester protecting group] were prepd. for use as antibiotics (no data). Thus, carbapenem II was prepd. via a series of synthetic steps starting from 2-bromo-4-dibenzofurancarboxaldehyde and ADC-13 (III; M = 4-NO2C6H4CH2) as the principle starting materials.

IT 186821-90-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 2-(dibenzofuranyl) - and 2-(dibenzothienyl)-carbapenems for use as antibiotics)

RN 186821-90-9 CAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[4[imino(methylamino)methyl]-2-dibenzofuranyl]-7-oxo-6-[1[(trimethylsilyl)oxy]ethyl]-, (4-nitrophenyl)methyl ester,
monohydrochloride, [5R-[5.alpha.,6.alpha.(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN L20

1996:623064 CAPLUS AN

125:275852 DN

Preparation of dioxopyrrolopyrrole antithrombotics and blood platelet ΤI aggregation inhibitors

ΙN Diederich, Francois; Obst, Ulrike; Wallbaum, Sabine; Weber, Lutz

F. Hoffmann-La Roche Ag, Switz. PA

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

Patent DT

German LΑ

FAN.	CNT 1						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	EP 728758	A1	19960828	EP 1996-102446	19960219		
	EP 728758	В1	20031015				
	R: AT, BE, C	H, DE	, DK, ES, FR,	GB, IT, LI, NL			
	JP 08245624	A2	19960924	JP 1996-33395	19960221		
	JP 2885682	В2	19990426				
	CN 1136567	Α	19961127	CN 1996-102534	19960226		
	CN 1056844	В	20000927				
	US 5686459	Α	19971111	US 1996-606811	19960226		
PRAI	CH 1995-552	Α	19950227				
	CH 1995-3457	Α	19951207				
os	MARPAT 125:275852						
GI							

The title compds. [I; R1, R2 = H, (un)substituted alkyl (hetero)aryl, AB cycloalkyl, etc.; R3 = H, CO2H, (un) substituted CONH2, etc.; R4-R6 = H, alkyl, aryl, aralkyl, cycloalkyl] [e.g., (3aRS, 4SR, 8aRS, 8bSR)-4-(2-benzyl-1,3-dioxodecahydropyrrolo[3,4-a]pyrrolizin-4-yl)benzamide hydrochloride; m.p. 202-205.degree.; IC50 0.22 .mu.M against the amidolytic activity of thrombin], useful as antithrombotics and blood platelet aggregation inhibitors, are prepd. and I-contg. formulations presented.

IT 182189-28-2P 182190-83-6P 182268-81-1P 182268-89-9P

Ι

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of dioxopyrrolopyrrole antithrombotics and blood platelet aggregation inhibitors)

182189-28-2 CAPLUS RN

CN Benzenecarboximidamide, 4-[5-[(4-aminophenyl)methyl]octahydro-4,6-dioxo-3-[(phenylmethoxy)methyl]pyrrolo[3,4-c]pyrrol-1-yl]-, monohydrochloride, (1.alpha., 3.beta., 3a.alpha., 6a.alpha.) - (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 182190-83-6 CAPLUS

CN Benzenecarboximidamide, 4-[octahydro-5-[(4-nitrophenyl)methyl]-4,6-dioxo-3-[(phenylmethoxy)methyl]pyrrolo[3,4-c]pyrrol-1-yl]-, (1.alpha.,3.beta.,3a.alpha.,6a.alpha.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 182268-81-1 CAPLUS

CN Benzenecarboximidamide, 4-[[5-(4-aminophenyl)methyl]octahydro-4,6-dioxo-3-[(phenylmethoxy)methyl]pyrrolo[3,4-c]pyrrol-1-yl]-, (1.alpha.,3.beta.,3a.alpha.,6a.alpha.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 182268-89-9 CAPLUS

CN Benzenecarboximidamide, octahydro-4-[[5-(4-nitrophenyl)methyl]-4,6-dioxo-3-[(phenylmethoxy)methyl]pyrrolo[3,4-c]pyrrol-1-yl]-, monohydrochloride, (1.alpha.,3.beta.,3a.alpha.,6a.alpha.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

L20 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1976:542770 CAPLUS

DN 85:142770

TI Synthesis of amidinophenyl aryl ketones and .alpha.-substituted amidinoacetophenones

AU Wagner, G.; Voigt, B.; Steinbrueck, K.

CS Sekt. Biowiss., Karl-Marx-Univ., Leipzig, Ger. Dem. Rep.

SO Pharmazie (1976), 31(6), 354-60 CODEN: PHARAT; ISSN: 0031-7144

DT Journal

LA German

AB 4-RC6H4COC6H4C(:NH)NH2.HCl-3(or 4) (R = H, Me, Cl, OMe, Ph, OPh) were mostly prepd. by the Friedel-Crafts acylation of RPh with 3- or 4-NCC6H4COCl (I), followed by the Pinner reaction. 4-PhCH2COC6H4C(:NH)NH2.HCl was prepd. by the acylation of PhCH(CO2Me)2 with I, followed by sapon., decarboxylation, and Pinner reaction. 4-RCH2CH2COC6H4C(:NH)NH2.HCl (R = Ph, 1-C10H7) were prepd. by the condensation of 4-NCC6H4COMe with PhCHO or 1-C10H7CHO, hydrogenation of the resulting 1,3-diaryl-2-propen-1-one, and Pinner reaction.

IT 60695-18-3P

RN 60695-18-3 CAPLUS

CN Benzenecarboximidamide, 4-[2-[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

VAR G1=O/C
REP G2=(0-3) CH2
VAR G3=19/18/17
ENTER (DIS), GRA, NOD, BON OR ?:end
L4 STRUCTURE CREATED

=> s 14 SAMPLE SEARCH INITIATED 14:17:00 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 3487 TO ITERATE

28.7% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

IT EXCEEDED)

2 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 66200 TO 73280 PROJECTED ANSWERS: 2 TO 297

L5 2 SEA SSS SAM L4

=> d 1-2

L5 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS on STN

RN 326861-99-8 REGISTRY

CN 1H-Benzimidazole-5-carboxamide, N-(2-aminoethyl)-2-[2-[4-(aminoiminomethyl)phenyl]ethyl]-N-[(3-methoxyphenyl)methyl]-1-(2-phenylethyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C35 H38 N6 O2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS on STN

RN 229951-25-1 REGISTRY

CN Benzenaminium, 4-[[[1-[[3-(aminoiminomethyl)phenyl]methyl]-5-(phenylmethoxy)-1H-indol-2-yl]carbonyl]amino]methyl]-N,N,N-trimethyl-(9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C34 H36 N5 O2

CI COM

SR CA

=> d 14

L4 HAS NO ANSWERS

L4

STR

VAR G1=O/C REP G2=(0-3) CH2 VAR G3=19/18/17 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

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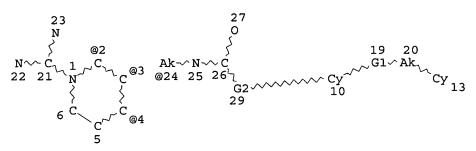
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FULL SCREEN SEARCH COMPLETED - 70043 TO ITERATE

100.0% PROCESSED 70043 ITERATIONS

SEARCH TIME: 00.00.02

95 ANSWERS

=> d 115 L15 HAS NO ANSWERS L15 STR



VAR G1=O/S/N
REP G2=(0-1) C
VPA 24-2/3/4 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 3

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

=> s l15 ful FULL SEARCH INITIATED 10:02:22 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 6395 TO ITERATE

100.0% PROCESSED 6395 ITERATIONS SEARCH TIME: 00.00.01

43 ANSWERS

L17

43 SEA SSS FUL L15

=> d bib abs hitstr 1-11

L19 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 2002:251344 CAPLUS

DN 137:332728

TI Novel bicyclic lactam inhibitors of thrombin: highly potent and selective inhibitors

AU St-Denis, Yves; Levesque, Sophie; Bachand, Benoit; Edmunds, Jeremy J.; Leblond, Lorraine; Preville, Patrice; Tarazi, Micheline; Winocour, Peter D.; Siddiqui, M. Arshad

CS Shire BioChem., Laval, QC, H7V 4A7, Can.

SO Bioorganic & Medicinal Chemistry Letters (2002), 12(8), 1181-1184 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

GΙ

AB The potency and selectivity of a previous series of low mol. wt. thrombin inhibitors were improved through modifications of the P1 and P3 residues in the formula I. Introduction of di-Ph substituted sulfonamides in the P3 moiety led to highly efficacious compds. By correctly selecting the combination of P1 and P3 residues, high levels of potency, selectivity and in vivo efficacy were obtained.

IT 325690-68-4P 473923-12-5P 473923-15-8P 473923-32-9P 473923-50-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and structure activity relations of bicyclic lactams as novel highly potent and selective thrombin inhibitors)

RN 325690-68-4 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, 2-[(diphenylmethyl)sulfonyl]octahydr o-N-[[1-[(hydroxyamino)iminomethyl]-4-piperidinyl]methyl]-4-oxo-, (6S,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 473923-12-5 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-2-[(2,2-diphenylethyl)sulfonyl]octahydro-4-oxo-,

(6S,8aS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 473923-15-8 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, 2-[(2,2-diphenylethyl)sulfonyl]octahydro-N-[[1-[(hydroxyamino)iminomethyl]-4-piperidinyl]methyl]-4-oxo-, (6S,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 473923-32-9 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-2-[(diphenylmethyl)sulfonyl]octahydro-4-oxo-, (6S,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 473923-50-1 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, octahydro-N-[[1-[(hydroxyamino)iminomethyl]-4-piperidinyl]methyl]-4-oxo-2-[(2-phenylethyl)sulfonyl]-, (6S,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 2001:872229 CAPLUS

DN 136:210039

TI Novel bicyclic lactam inhibitors of thrombin: potency and selectivity optimization through P1 residues

AU Levesque, Sophie; St. Denis, Yves; Bachand, Benoit; Preville, Patrice; Leblond, Lorraine; Winocour, Peter D.; Edmunds, Jeremy J.; Rubin, J. R.; Siddiqui, M. Arshad

CS Shire BioChem Inc., Laval, QC, H7V 4A7, Can.

SO Bioorganic & Medicinal Chemistry Letters (2001), 11(24), 3161-3164 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

AB Peptidomimetic inhibitors of thrombin lacking the important Ser195-carbonyl interaction have been prepd. The binding energy lost after the removal of the activated carbonyl was recaptured through a series of modifications of the Pl residues of the bicyclic lactam inhibitors. Selected substituted compds. displayed useful pharmacol. profiles both in vitro and in vivo.

IT 401947-02-2P 401947-05-5P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel peptidomimetic bicyclic lactam inhibitors of thrombin and their potency and selectivity optimization through P1 residues)

RN 401947-02-2 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]octahydro-4-oxo-2-[(phenylmethyl)sulfonyl]-, (6S,8aS)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 401947-05-5 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, octahydro-N-[[1-[(hydroxyamino)iminomethyl]-4-piperidinyl]methyl]-4-oxo-2-[(phenylmethyl)sulfonyl]-, (6S,8aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 8 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 11 CAPLUS COPYRIGHT 2003 ACS L19

AN 2000:853514 CAPLUS

134:157368 DN

In Vitro and in Vivo Properties of Bicyclic Lactam Inhibitors. A Novel TI Class of Low Molecular Weight Peptidomimetic Thrombin Inhibitors

Leblond, L.; Grouix, B.; Boudreau, C.; Yang, Q.; Siddiqui, M. A.; ΑU Winocour, P. D.

BioChem Pharma Inc., Laval, QC, H7V 4A7, Can. CS

Thrombosis Research (2000), 100(3), 195-209 SO CODEN: THBRAA; ISSN: 0049-3848

PΒ Elsevier Science Inc.

DTJournal

English LA

AB We have developed potent and selective thrombin inhibitors with a novel non-peptidic structure. A bicyclic lactam was used as the scaffold on which various P1 and P3 motifs were substituted. Herein, we report the in vitro and in vivo properties of four representatives of this novel class of inhibitors. Their Ki values were less than 10 nM, they inhibited equally both free and clot-bound thrombin, and they displayed high level of specificity for thrombin over other serine proteases (trypsin, factor Xa, activated Protein C, and plasmin). They prolonged the clotting time of human plasma to twice the control value in coagulation assays (TT, APTT, and PT) at a concn. below 3 .mu.M. Their anticoagulant activities using rat plasma were similar to, although slightly weaker, than with human plasma. Furthermore, they inhibited thrombin-induced platelet aggregation (human and rat) at concns. close to their Ki values for thrombin. These mols. demonstrated similar dose response antithrombotic efficacy in rat arterial and venous thrombosis models when given as i.v. bolus followed by infusion. Antithrombotic efficacy of 85% and greater was obsd. at a dose of 5-7 .mu.M/kq/h in each model. Bicyclic lactam inhibitor 3, at a dose which caused a complete inhibition of visible thrombus formation in the venous and arterial models of thrombosis, showed a 1.9-2.1 and a 4.0-4.8-fold shift in APTT and TT, resp. Unfortunately, the bicyclic lactam inhibitors exhibited low oral bioavailability in rats. Therefore, this novel class of bicyclic lactam thrombin inhibitor has the potential to be promising i.v. antithrombotic agents for the treatment of arterial as well as venous thrombosis and warrants further investigation.

IT 325690-68-4

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bicyclic lactams with specificity for thrombin inhibition over other serine proteases)

RN 325690-68-4 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-6-carboxamide, 2-[(diphenylmethyl)sulfonyl]octahydr o-N-[[1-[(hydroxyamino)iminomethyl]-4-piperidinyl]methyl]-4-oxo-, (6S,8aS) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

AT 176241

PRAI US 1994-261498

os

GI

US 1994-356831

US 1995-482117

WO 1995-US7832

MARPAT 131:116524

RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 4 OF 11 CAPLUS COPYRIGHT 2003 ACS
     1999:487130 CAPLUS
AN
DN
     131:116524
     3-Amino-2-oxo-1-piperidineacetic derivatives containing an arginine mimic
TI
     as enzyme inhibitors
     Semple, Joseph E.; Levy, Odile E.; Nutt, Ruth F.; Ripka, William C.
IN
     Corvas International, Inc., USA
PA
SO
     U.S., 38 pp.
     CODEN: USXXAM
DT
     Patent
LΑ
     English
FAN.CNT 4
     PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO.
     ______
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                           -----
                                           ______
                                                           _____
                                           US 1995-482117
ΡI
     US 5932733
                      Α
                            19990803
                                                            19950607
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                                                            19940617
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                      Α
                            19980203
                            19951228
                                           CA 1995-2192211
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                      AΑ
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     WO 9535313
                      A1
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             GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD,
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             SN, TD, TG
                            19960115
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                       Α1
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     EP 765339
                       B1
                            19990127
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                            19980324
                                           JP 1995-502570 19950619
     JP 10503177
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AT 1995-924623

19950619

19990215

19940617

19941213

19950607

19950619

Ε

Peptide aldehydes I [X = SO2, NR'SO2 (R' = H, alkyl, aryl, aralkyl), CO, O2C, NHCO, P(O)R'' (R'' = NR', OR', R', SR', where R'.noteq. H), direct link; R1 = (un)substituted alkyl, cycloalkyl, heterocycloalkyl, alkenyl, aryl, etc.; Q = (CH2)n (n = 1-4), (CH2)qR4 [q = 1, 2; R4 = S(O)p (p = 0-2), O, NR5 (R5 = H, alkyl, aryl)]; R2 = H, alkyl, alkenyl; R3 = 3-amidinocyclohexyl or -Ph, 1-amidino-3-piperidyl; Y is selected from R1 substituents, but not certain aza heterocycles] and their pharmaceutically acceptable salts were prepd. as thrombin inhibitors. Thus, benzylsulfonyl-norval(cyclo)-Gly-3-[3-piperidyl(N-guanidino)]-L-alaninal was prepd. as a mixt. of diastereomers. Isomer B showed inhibition const. Ki = 0.318 .+-. 16 nM against human .alpha.-thrombin amidolytic activity.

IT 232608-28-5P 232608-31-0P 232608-34-3P 232608-37-6P 232608-40-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(aminooxopiperidineacetic derivs. contg. an arginine mimic as enzyme inhibitors)

RN 232608-28-5 CAPLUS

CN 1-Piperidineacetamide, N-[(1S)-2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]-2-oxo-3-[(2-phenylethyl)amino]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 232608-31-0 CAPLUS

CN 1-Piperidineacetamide, N-[(1S)-2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]-2-oxo-3-[(3-phenylpropyl)amino]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 232608-34-3 CAPLUS

CN 1H-Azepine-1-acetamide, N-[(1S)-2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]hexahydro-2-oxo-3-[(2-phenylethyl)amino]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 232608-37-6 CAPLUS

CN 1-Piperidineacetamide, N-[(1S)-2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]-2-oxo-3-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 232608-40-1 CAPLUS

CN 1H-Azepine-1-acetamide, N-[(1S)-2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]hexahydro-2-oxo-3-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1999:354477 CAPLUS

DN 130:352556

TI Synthesis of substituted 3-amino-2-hydroxyphenylacetamide derivatives as enzyme inhibitors

IN Semple, Joseph Edward; Lim-Wilby, Marguerita S.; Brunck, Terence K.

PA Corvas International, Inc., USA

SO PCT Int. Appl., 152 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.					ND	DATE			APPLICATION NO.				o. :	DATE					
ΡI	I WO 9926920			 A:	 1	19990603			WO 1998-US25167						19981123					
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			KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,		
			MX,	NO,	ΝŻ,	ΡL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,		
			TT,	UA,	UG,	US,	UZ,	VN,	YU,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM	
		RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	DK,	ES,		
			FI,	FR,	GB,	GR,	ΙĒ,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,		
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	US 6	50110	047		Α		2000	0104		U	3 19	97-98	30114	4	1997	1126				
	US 6	52043	384		B	_	20010320				US 1997-979440					19971126				
	AU 9	9160	056		A.	1	1999	AU 1999-16056					19981123							
PRAI	US 1	L997-	-9794	440	Α		1997	1126												
	US 1	L997-	-980	114	Α		1997	1126												
	WO 1	L998-	-US2	5167	W		1998	1123												
os	MARE	TAC	130:3	3525	56															
GI																				

$$R^{6}$$
 R^{6}
 R^{4}
 R^{3}
 R^{1}
 R^{1}
 R^{2}
 R^{3}
 R^{3}
 R^{1}
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 R^{3}
 R^{3

Peptide aldehydes I [X = SO2, NR'SO2, CO, OCO, NHCO, P(O)R'', or direct AΒ link (R' = H, alkyl, aryl, aralkyl; R'' = NHR', OR', R', SR'); R1 = (un)substituted alkyl, cycloalkylalkyl, cycloalkyl, heterocycloalkyl, aryl, etc.; R2 = H, alkyl, alkenyl; R3 = HN:C(NH2)NH(CH2)d (d = 0-5), 3or 4-guanylcyclohexyl, 1-guanyl-3- or -4-piperidinyl; m- or p-guanylphenyl; R4, R5, R6 = R1, OR1, NHR1, SR1, S(O)R1, CF3, CF2H, OCF3, OCF2H, halo, etc.; R7 = R1, CF3, CF2H, etc.] were prepd. as enzyme inhibitors. Thus, N-[[2-hydroxy-3-(benzylsulfonylamino)-6methylphenyl]acetyl]-L-argininal (in cyclol form) trifluoroacetate was prepd. and showed IC50 = 3.19 nM for inhibition of thrombin. IT

225096-40-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of substituted aminohydroxyphenylacetamide derivs. as enzyme inhibitors)

RN225096-40-2 CAPLUS

Carbamic acid, [[3-[(2S)-3-hydroxy-2-[[[6-methyl-2-(phenylmethoxy)-3-CN [[(phenylmethyl)sulfonyl]amino]phenyl]acetyl]amino]propyl]-1piperidinyl][[(phenylmethoxy)carbonyl]amino]methylene]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 6 OF 11 CAPLUS COPYRIGHT 2003 ACS
AΝ
      1998:479552 CAPLUS
DN
      129:109333
      Preparation of heterobicyclic peptide derivatives as thrombin inhibitors
\mathbf{L}\mathbf{T}
      Bachand, Benoit; Doherty, Annette Marian; Siddiqui, M. Arshad; Edmunds,
IN
      Jeremy John
      Biochem Pharma Inc., Can.
PA
SO
      PCT Int. Appl., 66 pp.
      CODEN: PIXXD2
DT
      Patent
      English
LΑ
FAN.CNT 1
                                                        APPLICATION NO.
      PATENT NO.
                            KIND
                                    DATE
       _____
                             <del>-</del> - - -
                                                        WO 1997-US22985 19971222
ΡI
      WO 9828326
                             A1
                                    19980702
           W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
                 DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
                 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
           NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, MI, MB, NE, CM, TD, TC
                 GA, GN, ML, MR, NE, SN, TD, TG
                                                        AU 1998-55260
                                                                              19971222
                             A1
                                    19980717
      AU 9855260
                                    19961223
PRAI US 1996-34311P
                             Ρ
                                    19971222
                              W
      WO 1997-US22985
      MARPAT 129:109333
os
GΙ
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- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- This invention relates to heterobicyclic peptide derivs. I [A = (CHR8)0-1, S, S(O), SO2, NR8; B = S, SO2, O, N, NH, CH, CR6R7; D = (CHR9)0-2, CH; E = CH2, CHCOR9; X = O, NR5, CHR5; Y = O, S, S(O), SO2, NR5, CO, CHR8; Z = O, S, H2; R1 = any group Q-Q3; J = CH, N; K = bond, NH, G = C1-4 alkoxy, CN, NH2, CH2NH2, C(NH2):NH, NHC(NH2):NH, CH2NHC(NH2):NH, etc; U = CN, NH2, C(NH2):NH, NHC(NH2):NH; T = H, OH, amino, peptide residue contg. 1-4 amino acids, C1-6 alkyl, C1-16 alkoxy, C6-20 aralkyl, C6-16 aryloxy, C6-20 arylalkoxy, (un)substituted aryl or heterocycle; R2 = H, (un)substituted C1-6 alkyl; R3 = H, NR6R7, C1-6 alkyl; R4, R5 = independently H, NR6R7, C6-16 aryl, (un)substituted C3-7 cycloalkyl, (un)substituted, optionally heteroatom-interrupted C1-6 alkyl; R6, R7 = independently H, C1-6 alkyl; R8 = H, optionally heteroatom-interrupted C1-6 alkyl, C6-16 aryl, C3-7 cycloalkyl, heterocyclyl, hydrophobic group; R9 = H, C1-6 alkyl, COR1; R11 = H, C1-6 alkyl], their prepn., and pharmaceutical compns. thereof, as

thrombin inhibitors. Also, the invention relates to the use of such compds. and compns. as anticoagulants and as agents for the treatment and prophylaxis of thrombotic disorders such as venous thrombosis, pulmonary embolism and arterial thrombosis resulting in acute ischemic events such as myocardial infarction or cerebral infarction. Thus, amidation of keto ester II (Mtr = 4-methoxy-2,3,6-trimethylbenzenesulfonyl) (prepn. given) with octahydropyrrolo[1,2-a]pyrazinecarboxylic acid III, followed by sapon. and acidic deprotection gave inhibitor IV as a trifluoroacetate salt. IV inhibited human .alpha.-thrombin with Ki = 0.09 nM in an in vitro assay.

IT 209796-67-8P 209796-68-9P 209796-71-4P 209796-72-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterobicyclic peptide derivs. as thrombin inhibitors)

RN 209796-67-8 CAPLUS

CN

2-Piperidinebutanoic acid, 1-(aminoiminomethyl)-.beta.-[[[(6S,8aS)-octahydro-4-oxo-2-[(phenylmethyl)sulfonyl]pyrrolo[1,2-a]pyrazin-6-yl]carbonyl]amino]-.alpha.-oxo-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 209796-68-9 CAPLUS

CN 2-Piperidinebutanoic acid, 1-(aminoiminomethyl)-.beta.-[[[(6S,8aS)-octahydro-4-oxo-2-[(phenylmethyl)sulfonyl]pyrrolo[1,2-a]pyrazin-6-yl]carbonyl]amino]-.alpha.-oxo-, methyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 209796-71-4 CAPLUS

CN 4-Piperidinepropanoic acid, 1-(aminoiminomethyl)-.beta.-[[[(6S,8aS)-octahydro-4-oxo-2-[(phenylmethyl)sulfonyl]pyrrolo[1,2-a]pyrazin-6-yl]carbonyl]amino]-.alpha.-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 209796-72-5 CAPLUS

CN 4-Piperidinepropanoic acid, 1-(aminoiminomethyl)-.beta.-[[[(6S,8aS)-octahydro-4-oxo-2-[(phenylmethyl)sulfonyl]pyrrolo[1,2-a]pyrazin-6-yl]carbonyl]amino]-.alpha.-oxo-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1998:175945 CAPLUS

DN 128:244342

TI Preparation of lactam inhibitors of thrombin

IN St. Denis, Yves; Siddiqui, M. Arshad; Cody, Wayne Livingston; Edmunds,
 Jeremy John; Plummer, Janet Samartino

PA Biochem Pharma, Inc., Can.; St-Denis, Yves; Siddiqui, M. Arshad; Cody, Wayne Livingston; Edmunds, Jeremy John; Plummer, Janet Samartino

SO PCT Int. Appl., 106 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9809987 Al 19980312 WO 1997-US15312 19970905

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

	ΑU	9741723	A1	19980326
PRAI	GB	1996-18687	Α	19960906
	US	1996-25599P	P	19960906
	WO	1997-US15312	W	19970905
os	MAF	RPAT 128:244342		
GI				

Heterocyclic thrombin inhibitors I (W, X = CHR4, CR4, NR4, N, O, S, SO, SO2, provided that at least one of W and X is NR4, N, O, S, SO, SO2; Y = CHR4, CR4, CO; Q = CO, CS, CHR4; R1 is a polar amino acid residue or deriv. or analog optionally substituted with an amino acid, peptide, or heterocycle; R2, R2' = H, halo, or alkyl optionally substituted by an aryl, heterocyclic or cycloalkyl group; R3, R4 = H, NH2, alkylamino, CO2H, aryl, cycloalkyl, etc.) were prepd. Thus, N-[4-guanidino-1-(thiazole-2-carbonyl)butyl]-2-[2-oxo-4-(3-phenylpropionyl)-1-piperazinyl]acetamide, prepd. by a coupling procedure in which the guanidino group is protected by 4-methoxy-2,3,6-trimethylbenzenesulfonyl, was assayed for thrombin affinity (IC50 = 35 nM).

IT 204690-44-8P 204690-48-2P 204690-49-3P 204691-55-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of lactam inhibitors of thrombin)

RN 204690-44-8 CAPLUS

CN 1-Piperazineacetamide, N-[1-[[1-(aminoiminomethyl)-3-piperidinyl]methyl]-2-oxo-2-(2-thiazolyl)ethyl]-2-oxo-4-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 204690-48-2 CAPLUS

CN 1-Piperazineacetamide, N-[1-[[1-(aminoiminomethyl)-3-piperidinyl]methyl]-2-oxo-2-(2-thiazolyl)ethyl]-2-oxo-6-(phenylmethyl)-4[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O & O & O \\
 & S & CH_2 - Ph \\
 & C - CH - NH - C - CH_2 - N & O \\
 & CH_2 & Ph - CH_2
\end{array}$$

$$\begin{array}{c|c}
 & Ph - CH_2 - Ph \\
 & Ph - CH_2 - Ph - CH_2
\end{array}$$

RN 204690-49-3 CAPLUS

CN 1-Piperazineacetamide, N-[1-[[1-(aminoiminomethyl)-3-piperidinyl]methyl]-2-oxo-2-(2-thiazolyl)ethyl]-2-(1-methylethyl)-6-oxo-4-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 204691-55-4 CAPLUS

CN 1(2H)-Quinoxalineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-3,4-dihydro-2-oxo-4-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

L19 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1997:613883 CAPLUS

DN 127:293131

TI Preparation of 3-aralkylsulfonamido-2-oxodihydropyridine-1-acetamides and analogs as thrombin inhibitors

IN Sanderson, Philip E.; Naylor-Olsen, Adel M.; Dyer, Dona L.; Vacca, Joseph P.; Isaacs, Richard C. A.; Dorsey, Bruce D.; Fraley, Mark E.

PA Merck and Co., Inc., USA

SO U.S., 36 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

1111.	Q141 I				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 5668289	Α	19970916	US 1996-669189	19960624
	US 5744486	Α	19980428	US 1997-829406	19970331
PRAI	US 1996-669189		19960624		
os	MARPAT 127:29313	1			
GI					

Title compds. [I; R = (phenyl)alkyl, alkoxycarbonyl, (un)substituted PhCH2SO2, etc.; R1 = trans-4-aminocyclohexyl, (un)substituted 6-amino-3-pyridinyl, etc.; R3 = H, (cyclo)alkyl, CF3] were prepd. Thus, 2-hydroxy-6-methylpyridine-3-carboxylic acid was refluxed with (PhO)2P(O)N3 and PhCH2OH and the product N-alkylated with BrCH2CO2CMe3 to give, in 3 addnl. steps, 3-benzylsulfonylamino-6-methyl-2-oxodihydropyridine-1-acetic acid which was amidated by trans-4-tert-butoxycarbonylaminocyclohexylmethylamine to give, after deprotection, I (R = PhCH2SO2, R1 = trans-4-aminocyclohexyl, R3 = Me). Data for biol. activity of I were given.

IT 187162-47-6P 187162-49-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 3-aralkylsulfonamido-2-oxodihydropyridine-1-acetamides and analogs as thrombin inhibitors)

RN 187162-47-6 CAPLUS

CN 1(2H)-Pyridineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-6-methyl-2-oxo-3-[(1-oxo-3-phenylpropyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N}-\text{C} \\ \text{C}\\ \text{H}_2-\text{NH}-\text{C}-\text{CH}_2-\text{NH}-\text{C}-\text{CH}_2-\text{NH} \\ \text{Me} \\ \end{array}$$

RN 187162-49-8 CAPLUS

CN 1(2H)-Pyridineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-6-methyl-2-oxo-3-[(1-oxo-3,3-diphenylpropyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N}-\text{C} \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{C}\text{H}_2-\text{NH}-\text{C}-\text{CH}_2-\text{NH}-\text{C}\\ \text{C}\text{H}_2-\text{NH}-\text{C}-\text{CH}_2-\text{NH}\\ \text{Me} \\ \end{array}$$

L19 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1997:423742 CAPLUS

DN 127:136061

TI L-373,890, an achiral, noncovalent, subnanomolar thrombin inhibitor

AU Sanderson, Philip E. J.; Dyer, Dona L.; Naylor-Olsen, Adel M.; Vacca, Joseph P.; Gardell, Steven J.; Lewis, S. Dale; Lucas, Bobby J., Jr.; Lyle, Elizabeth A.; Lynch, Joseph J., Jr.; Mulichak, Anne M.

CS Merck Research Laboratories, Department of Medicinal Chemistry, West Point, PA, 19486, USA

SO Bioorganic & Medicinal Chemistry Letters (1997), 7(12), 1497-1500 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier

DT Journal

LA English

GI

AB L-373,890 (I), a highly selective and efficacious pyridinone acetamide thrombin inhibitor was designed using a combination of X-ray crystallog., mol. modeling and empirical structure optimization.

IT 187162-47-6P 187162-49-8P 193151-01-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. of pyridinone-based peptidomimetics as thrombin inhibitors)

RN 187162-47-6 CAPLUS

CN 1(2H)-Pyridineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-6-methyl-2-oxo-3-[(1-oxo-3-phenylpropyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N}-\text{C} \\ \text{N} \\ \text{CH}_2-\text{NH}-\text{C}-\text{CH}_2-\text{N} \\ \text{Me} \\ \end{array}$$

RN 187162-49-8 CAPLUS

CN 1(2H)-Pyridineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-6-methyl-2-oxo-3-[(1-oxo-3,3-diphenylpropyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N}-\text{C} \\ \text{O} \\ \text{O} \\ \text{CH}_2-\text{NH}-\text{C}-\text{CH}_2-\text{N} \\ \text{Me} \\ \end{array}$$

RN 193151-01-8 CAPLUS

CN 1(2H)-Pyridineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-3-(benzoylamino)-6-methyl-2-oxo-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N-C} \\ \text{N} \\ \text{CH}_2\text{-NH-C-CH}_2\text{-N} \\ \text{Me} \\ \end{array}$$

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L19 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2003 ACS
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AN 1997:178881 CAPLUS

DN 126:171490

TI Preparation of 2-pyridinones as thrombin inhibitors

IN Sanderson, Philip E.; Naylor-Olsen, Adel M.; Dyer, Dona L.; Vacca, Joseph
P.; Isaacs, Richard C. A.; Dorsey, Bruce D.; Fraley, Mark E.

PA Merck and Co., Inc., USA; Sanderson, Philip E.; Naylor-Olsen, Adel M.; Dyer, Dona L.; Vacca, Josep, P.; Isaacs, Richard C. A.; Dorsey, Bruce D.; Fraley, Mark, E.

SO PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.			KIND		DATE			APPLICATION NO.					DATE						
PI WO 9701338				A	1	1997	0116		WO 1996-US10778 1996						0624				
		W:	AL,	AM,	AU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CN,	CZ,	EE,	GE,	HU,	IL,	IS,	
			JP,	KG,	KR,	ΚZ,	LK,	LR,	LT,	LV,	MD,	MG,	MK,	MN,	MX,	NO,	ΝZ,	PL,	
			RO,	RU,	SG,	SI,	SK,	ТJ,	TM,	TR,	TT,	UA,	US,	UZ,	VN,	AM,	ΑZ,	BY,	
			KG,																
		RW:	KE,	LS,	MW,	SD,	SZ,	UG,	AT,	BE,	CH,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	
			•	•	•		NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	ML,	
			•	ΝE,	•	•													
	CA 2224437							CA 1996-2224437 19960624											
	ΑU	9663	917		A1		19970130			AU 1996-63917 19960624					0624				
	AU	7037	44		B	2	19990401												
	ΕP	8351	09		A1		1998	0415		EP 1996-923399			9	1996	0624				
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	PT,	ΙE,	FI
	JP	1150	8558		T	2	1999	0727		JP 1996-504499					1996	0624			
PRAI	US	1995	-5601	Đ	P		1995	0627											
	US	1995	-3818	3 P	P		1995	0915											
	GB	1996	-3450)	Α		1996	0219											

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- The title compds. [I; W = benzenemethylsulfonyl, diphenylmethylsulfonyl, AB naphthylsulfonyl, etc.; A = trans-4-aminocyclohexyl, 2-aminopyridin-4-yl, etc.; R3 = H, C1-4 alkyl, C3-7 cycloalkyl, CF3], useful in inhibiting thrombin and assocd. thrombotic occlusions, were prepd. Thus, reaction of PhCH2SO2Cl with 2-pyridinone II in the presence of Et3N in CH2Cl2 followed by treatment of the intermediate III in CH2Cl2/EtOAc with HCl gas, reaction of the Boc-deprotected intermediate with H2NC(:NH)SO3H in the presence of Et3N in DMF, and treatment of the resulting 2-pyridinone IV in MeOH/THF with 1M LiOH afforded V which showed Ki < 100 nM against human thrombin and Ki of > 500 nM against human trypsin.
- 187162-47-6P 187162-49-8P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of 2-pyridinones as thrombin inhibitors)
- RN187162-47-6 CAPLUS 1(2H)-Pyridineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-6-CN methyl-2-oxo-3-[(1-oxo-3-phenylpropyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N}-\text{C} \\ \text{N} \\ \text{CH}_2-\text{NH}-\text{C}-\text{CH}_2-\text{NH} \\ \text{CH}_2-\text{NH}-\text{C}-\text{CH}_2-\text{N} \\ \text{Me} \\ \end{array}$$

- 187162-49-8 CAPLUS RN
- CN 1(2H)-Pyridineacetamide, N-[[1-(aminoiminomethyl)-4-piperidinyl]methyl]-6methyl-2-oxo-3-[(1-oxo-3,3-diphenylpropyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \text{H}_2\text{N-C} \\ \text{N} \\ \text{CH}_2-\text{NH-C-CH}_2 \\ \text{N} \\ \text{Me} \\ \end{array}$$

- ANSWER 11 OF 11 CAPLUS COPYRIGHT 2003 ACS L19
- 1996:222238 CAPLUS AN
- 124:290275 DN
- Preparation of peptide aldehydes containing 3-amino-2-oxo-1-TI

piperidineacetic derivative and an arginine mimic as specific inhibitors of thrombin Semple, Joseph E.; Levy, Odile E.; Nutt, Ruth F.; Ripka, William C. IN Corvas International, Inc., USA PAPCT Int. Appl., 114 pp. so CODEN: PIXXD2 DT Patent English LΑ FAN.CNT 4 KIND DATE APPLICATION NO. DATE PATENT NO. -----PΙ WO 9535313 A1 19951228 WO 1995-US7832 19950619 W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG 19980203 US 1994-261498 19940617 US 5714499 Α US 5932733 19990803 US 1995-482117 19950607 AU 9529054 A1 19960115 AU 1995-29054 19950619 EP 765339 19970402 EP 1995-924623 19950619 **A**1 EP 765339 В1 19990127 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE JP 1995-502570 19950619 JP 10503177 T2 19980324 PRAI US 1994-261498 19940617 US 1994-356831 19941213 US 1995-482117 19950607 WO 1995-US7832 19950619 MARPAT 124:290275 os For diagram(s), see printed CA Issue. GΙ The title peptide aldehydes [I; X = SO2, NR'SO2, CO, O2C, NHCO, P(O)R'', AB direct link; wherein R' = H, C1-4 alkyl, C6-14 aryl, C6-16 aralkyl; R'' = NR', OR', SR', provided that R'' .noteq. NH, OH, H, or SH; R1 = C1-12 alkyl, (un)substituted C5-8 cycloalkyl-C1-3 alkyl, (un)substituted C3-15 cycloalkyl, (un) substituted C4-10 heterocycloalkyl, C4-10 heterocyclyl, or C5-14 heteroaryl contg. heteroatoms selected from O, N, S, SO, and SO2, (un) substituted C3-6 alkenyl, (un) substituted C6-14 aryl, (un) substituted aralkyl, Q1, etc., provided that Y .noteq. Q1; wherein Q1 = 5- to 7-membered heterocycle of 3-6 ring C atoms; V = CH2, O, S, SO, SO2; Q = (CH2)n, (CH2)qR4; wherein n = 1-4; q = 1,2; R4 = S, SO, SO2, O, (un) substituted NH; R2 = H, C1-4 alkyl, C2-4 alkenyl; Y = group selected from R1, provided that Y .noteq. Q1; R3 = Q2, Q3; wherein W = N, CH] and their pharmaceutically acceptable salts, which are potent and specific inhibitors of thrombin and are useful as therapeutic agents (e.g. antithrombotic agents) for disease states in mammals characterized by abnormal thrombosis, are prepd. Thus, (S)-3-(benzylsulfonylamino)hexahydr o-2-oxo-1-piperidineacetic acid (prepn. given) was condensed with 3-(3-piperidyl)-L-alaninol deriv. (II) using 1-hydroxybenzotriazole monohydrate, 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride, 4-dimethylaminopyridine, and Et3N in MeCN to give the dipeptide intermediate (III; R = CH2OH, R5 = CO2CH2Ph). The latter compd. was hydrogenated in the presence of 10% Pd-C in AcOH/MeOH at 45 psi for 3 h to qive III.AcOH (R = CH2OH, R5 = H), which was oxidized by DMSO, 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride, and dichloroacetic acid at 0.degree. for 5 min and at ambient temp. for 85 min to give, after purifn. by reverse phase HPLC, two diastereomers of the title dipeptide III (R = CHO, R5 = H). The slower-moving diastereomer in HPLC in vitro showed IC50 of 0.8 nM against human .alpha.-thrombin and did not inhibit serine proteases such as recombinant tissue plasminogen activator, plasmin, activated protein C, chymotrypsin, and trypsin at 2,5000 nM.

IT 175281-98-8P 175281-99-9P 175282-00-5P 175282-01-6P 175282-02-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of peptide aldehydes contg. aminooxopiperidineacetic deriv. and arginine mimic as specific thrombin inhibitors and antithrombotics)

RN 175281-98-8 CAPLUS

CN 1-Piperidineacetamide, N-[2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]-2-oxo-3-[(2-phenylethyl)amino]- (9CI) (CA INDEX NAME)

RN 175281-99-9 CAPLUS

CN 1-Piperidineacetamide, N-[2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]-2-oxo-3-[(3-phenylpropyl)amino]- (9CI) (CA INDEX NAME)

RN 175282-00-5 CAPLUS

CN 1H-Azepine-1-acetamide, N-[2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]hexahydro-2-oxo-3-[(2-phenylethyl)amino]- (9CI) (CA INDEX NAME)

RN

CN 1-Piperidineacetamide, N-[2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]-2-oxo-3-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

RN 175282-02-7 CAPLUS

CN 1H-Azepine-1-acetamide, N-[2-[1-(aminoiminomethyl)-3-piperidinyl]-1-formylethyl]hexahydro-2-oxo-3-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

AN 1977:89337 CAPLUS

DN 86:89337

TI Synthesis of amidinobenzylaryl-, amidinobenzylalkyl-, and amidinobenzylalkoxymethyl ketones

AU Wagner, G.; Voigt, B.; Schramm, C.

CS Sekt. Biowiss., Karl-Marx-Univ., Leipzig, Ger. Dem. Rep.

SO Pharmazie (1976), 31(7), 432-6 CODEN: PHARAT; ISSN: 0031-7144

DT Journal

LA German

GI

$$R^{1} \qquad H_{2}N (HN =) C \qquad CH_{2}COR$$

$$H_{2}N (HN =) C \qquad CH_{2}COCH_{2}OR$$

The title compds. [I; R = 3-C(:NH)NH2, 4-C(:NH)NH2; R1 = H, Cl, OH, Me, MeO, Ph, PhO; II; R = Me, Pr, PhCH2; III; R = Et, PhCH2] are prepd. by std. procedures. Thus, reaction of 4-NCC6H4CH2COCl with PhOH in CS2 in presence of AlCl3 gives 38% 4-NCC6H4CH2COC6H4OH-4 which reacts with MeOH in dioxane in presence of HCl to give 50% 4-[MeO(HN:)C]C6H4CH2COC6H4OH-4 (IV). Reaction of IV with NH3 in EtOH gives 75% I.HCl [R = 4-C(:NH)NH2].

IT 62044-34-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrolysis of)

RN 62044-34-2 CAPLUS

CN Benzenecarboximidamide, 4-[[2-[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

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1999:460399 CAPLUS
AN
DN
     131:87814
     Indole derivatives as inhibitors of factor Xa, and their preparation and
ΤI
     use as anticoagulants
     Defossa, Elisabeth; Heinelt, Uwe; Klingler, Otmar; Zoller, Gerhard;
IN
     Al-Obeidi, Fahad; Walser, Armin; Wildgoose, Peter; Matter, Hans
     Hoechst Marion Roussel Deutschland Gmbh, Germany
PA
     PCT Int. Appl., 199 pp.
so
     CODEN: PIXXD2
     Patent
DT
     English
LΑ
FAN.CNT 1
                      KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
                            -----
     _____
                     ____
                            19990708
                                          WO 1998-EP8030
                                                             19981210
PΙ
     WO 9933800
                      A1
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             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            19990708
                                           CA 1998-2316172 19981210
     CA 2316172
                       AΑ
                                           AU 1999-20528
                                                             19981210
                            19990719
     AU 9920528
                       Α1
     AU 743881
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                            20020207
                                           BR 1998-14340
                                                             19981210
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                            20001003
                       A1
                            20001011
                                           EP 1998-965244
                                                             19981210
     EP 1042287
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,
             SI, FI
                            20011225
                                            JP 2000-526484
                                                             19981210
     JP 2001527066
                       Т2
                                           NZ 1998-505370
                                                             19981210
     NZ 505370
                       Α
                            20020628
                       Α
                            19990728
                                           ZA 1998-11759
                                                             19981222
     ZA 9811759
                                           NO 2000-3057
                                                             20000614
     NO 2000003057
                       Α
                            20000818
                       В1
                                           US 2000-582344
                                                             20000814
                            20020108
     US 6337344
PRAI EP 1997-122901
                            19971224
                       Α
     WO 1998-EP8030
                       W
                            19981210
os
     MARPAT 131:87814
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GΙ

The invention relates to the inhibition of blood clotting proteins, and AΒ more particularly, to indole derivs. or their physiol. acceptable salts which effect this, having formula I [R1 groups = H, halo, alkyl, CF3, (un) substituted Ph or phenylalkoxy, etc., with .gtoreq.2 of R1 being H; .gtoreq.1 of R2 and R3 = (CH2)0-2CO2H or derivs., other = H, F, Cl, Br, or alkyl; or R2R3 = CH2CH2N(COPh)CH2 or analogs; A = bond, alk(en/yn)ylene, CO, SO, SO2, etc.; R4 = (un) substituted Ph, pyridyl, or other heterocyclyl]. I are inhibitors of the blood clotting enzyme factor Xa. The invention also relates to processes for the prepn. of I, to methods of inhibiting factor Xa activity and blood clotting, to use of I in the treatment and prophylaxis of assocd. (e.g., thromboembolic) diseases, and to the use of I in the prepn. of related medicaments. The invention further relates to compns. contg. I, in particular pharmaceutical compns. contq. a compd. I and pharmaceutically acceptable carriers and/or auxiliary substances. Over 160 compds. I were prepd. For instance, 1H-indole-2-carboxylic acid Et ester underwent a 5-step sequence to give title salt II. This prepn. involved (1) N-alkylation with 3-cyanobenzyl bromide, (2) alk. hydrolysis of the ester, (3) amidation with 4-(Me2N)C6H4CH2NH2.2HCl, (4) conversion of the nitrile to a thioamide, and (5) quaternization at dimethylamino, and ammonolysis of the thioamide to an amidine. In an assay using human factor Xa in vitro, II had a Ki value of 0.090 .mu.M.

ΙI

IT 229951-27-3P 229951-34-2P 229954-46-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(target compd.; prepn. of indole derivs. as inhibitors of factor Xa) 229951-27-3 CAPLUS

Benzenaminium, 4-[[[[1-[[3-(aminoiminomethyl)phenyl]methyl]-5-(phenylmethoxy)-1H-indol-2-yl]carbonyl]amino]methyl]-N,N,N-trimethyl-, salt with trifluoroacetic acid (1:1), mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

RN

CN

CRN 76-05-1 CMF C2 H F3 O2

CM 2

CRN 229951-26-2

CMF C34 H36 N5 O2 . C2 F3 O2

CM 3

CRN 229951-25-1

CMF C34 H36 N5 O2

CM 4

CRN 14477-72-6 CMF C2 F3 O2

RN 229951-34-2 CAPLUS CN 1H-Indole-2-carboxan

1H-Indole-2-carboxamide, N,1-bis[[3-(aminoiminomethyl)phenyl]methyl]-5-(phenylmethoxy)-, dihydriodide (9CI) (CA INDEX NAME)

●2 HI

RN 229954-46-5 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[[3-(aminoiminomethyl)phenyl]methyl]-5-(phenylmethoxy)-, [3-(aminoiminomethyl)phenyl]methyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 229951-49-9 CMF C32 H29 N5 O3

$$\begin{array}{c|c} & & & & & & \\ \text{Ph-CH}_2-\text{O} & & & & & \\ & & & & \text{C-O-CH}_2 & & & \\ & & & & & \text{C-NH}_2 & \\ & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\ & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ & &$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

IT 229950-49-6P 229951-50-2P 229951-52-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

Absolute stereochemistry.

CM 2
CRN 64-19-7
CMF C2 H4 O2

RN 229951-50-2 CAPLUS
CN 1H-Indole-2-carboxylic acid, 1-[[3-(aminoiminomethyl)phenyl]methyl]-5(phenylmethoxy)-, [3-(aminoiminomethyl)phenyl]methyl ester, diacetate
(9CI) (CA INDEX NAME)

CM 1

CRN 229951-49-9 CMF C32 H29 N5 O3

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 229951-52-4 CAPLUS

CN Benzenaminium, 4-[[[[1-[[3-(aminoiminomethyl)phenyl]methyl]-4-(phenylmethoxy)-1H-indol-2-yl]carbonyl]amino]methyl]-N,N,N-trimethyl-, iodide, monohydriodide (9CI) (CA INDEX NAME)

• I-

HI

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
2003:656582 CAPLUS
AN
DN
     139:197371
     Preparation of substituted pyridinones as modulators of p38 MAP kinase
ΤI
     Devadas, Balekudru; Walker, John; Selness, Shaun R.; Boehm, Terri L.;
IN
     Durley, Richard C.; Devraj, Rajesh; Hickory, Brian S.; Rucker, Paul V.;
     Jerome, Kevin D.; Madsen, Heather M.; Alvira, Edgardo; Promo, Michele A.;
     Blevis-Bal, Radhika M.; Marrufo, Laura D.; Hitchcock, Jeff; Owen, Thomas;
     Naing, Win; Xing, Li; Shieh, Huey S.; Sambandam, Aruna; Liu, Shuang;
     Scott, Ian L.; McGee, Kevin F.
     Pharmacia Corporation, USA
PA
SO
     PCT Int. Appl., 1052 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                                              DATE
     PATENT NO.
                      KIND
                             DATE
                                            APPLICATION NO.
PΙ
     WO 2003068230
                       Α1
                             20030821
                                            WO 2003-US4634
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
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PRAI US 2002-357029P
                       Ρ
                             20020214
     US 2002-436915P
                       Ρ
                             20021230
OS
     MARPAT 139:197371
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$$R^{2}$$
 R^{3}
 R^{4}
 R^{5}
 R^{5}
 R^{1}
 R^{5}
 R^{1}
 R^{5}
 R^{1}
 R^{1}
 R^{2}
 R^{2}
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 R^{4}
 R^{5}
 R^{5

GΙ

Disclosed are title compds. I [wherein R1 = H, halo, NO2, CHO, CN, CO2H, AΒ or (un)substituted (halo)alkyl, (aryl)alkoxy, aryl(alkyl), alkenyl, (aryl)alkynyl, (aryl)alkanoyl, alkoxyalkyl, or haloalkoxy; R2 = H, OH, halo, NR8R9, CO2R, or (un) substituted OSO2-alkyl, OSO2-aryl, arylalkoxy, aryloxy(alkyl), arylthio(alkoxy), arylalkynyl, alkoxy(alkoxy), alkyl, alkynyl, OCONH(CH2)n-aryl, OCON(alkyl)(CH2)n-aryl, dialkylamino, (hetero)aryl(alkyl), arylalkenyl, or heterocycloalkyl(alkyl); R3 = H, halo, alkenyl, NR6R7, NR6R7-alkyl, alkyl, or (un) substituted (aryl)alkoxycarbonyl, aryloxycarbonyl, arylalkyl, OCONH(CH2)n-aryl, arylalkoxy, OCON(alkyl)(CH2)n-aryl, aryloxy, arylthio, or (aryl)thioalkoxy; R4 = H or (un)substituted alkyl; R5 = H, aryl, aryl(thio)alkyl, NH2, alkoxycarbonyl, alkynyl, SO2-alkyl, (hetero)cycloalkyl(alkyl), heteroaryl, or (un)substituted alkyl, alkoxy(alkyl), or alkenyl; R6 and R7 = independently H, OH, or (un) substituted (aryl) alkyl, alkoxy(alkyl), alkanoyl(alkyl), arylalkoxy, SO2-alkyl, (aryl)alkoxycarbonyl, heteroarylalkyl, or arylalkanoyl; or NR6R7 = (un)substituted (thio)morpholinyl, pyrrolidinyl, piperidinyl, pyrrolidinyl, or piperazinyl; R8 = independently H or (un)substituted (aryl)alkyl or (aryl)alkanoyl; R9 = H or (un)substituted (aryl)alkyl, (aryl)alkanoyl, cycloalkyl(alkyl), alkenyl, heteroaryl, (alkyl)aminoalkyl, SO2Ph, or aryl; R = independently H or (un)substituted alkyl; n = 0-6; and pharmaceutically acceptable salts thereof]. These compds. are useful for treating diseases and conditions caused or exacerbated by unregulated p38 MAP Kinase and/or TNF activity, such as inflammation, ischemia, viral infections, and autoimmune diseases (no data). Pharmaceutical compns. contg. I, methods of prepg. them, and methods of treatment using the compds. are also disclosed. For example, reaction of 4-benzyloxy-2(1H)pyridone with EtBr in the presence of K2CO3 in DMF gave II. The latter inhibited MKK6-activated human p38.alpha. kinase phosphorylation of a biotinylated substrate or human p38.alpha.-induced phosphorylation of EGFRP (epidermal growth factor receptor peptide) with an IC50 in the range of 1 .mu.M to 25 .mu.M.

IT 586372-89-6P, 4-[[4-(Benzyloxy)-3-bromo-2-oxo-2H-pyridin-1yl]methyl]-N'-hydroxybenzenecarboximidamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(p38 kinase inhibitor; prepn. of pyridinones as modulators of p38 MAP kinase for treatment of inflammatory conditions, ischemia, viral infections, autoimmune diseases, and other conditions)

RN 586372-89-6 CAPLUS

CN

Benzenecarboximidamide, 4-[[3-bromo-2-oxo-4-(phenylmethoxy)-1(2H)-pyridinyl]methyl]-N-hydroxy- (9CI) (CA INDEX NAME)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

1982:400333 CAPLUS AN

97:333 DN

1,4-Bis(4-guanylphenylethyl)benzenes as potential antitrypanosomal agents ΤI

Das, Bijan P.; Zalkow, Vera B.; Forrester, Margret L.; Molock, Frank F.; ΑU Boykin, David W.

Dep. Chem., Georgia State Univ., Atlanta, GA, 30303, USA CS

Journal of Pharmaceutical Sciences (1982), 71(4), 465-6 SO

CODEN: JPMSAE; ISSN: 0022-3549

DT Journal

English LΑ

CASREACT 97:333 OS

GΙ

Five 1,4-bis(4-guanylphenylethyl)benzenes, including masked amidines in AΒ which the quanyl function is incorporated into a heterocyclic ring, were prepd. for screening as potential antitrypanosomal agents. Some of these compds. were active against Trypanosoma rhodesiense in mice. diamidines were prepd. by std. methods from 1,4-bis(4cyanophenylethyl)benzene [81919-21-3] which was obtained from 1,4-bis(4-cyanostyryl)benzene [13001-40-6] by diimide redn. The bis guanyl compd. I [81919-15-5] had good activity providing cures down to dosage of 26 mg/kg. The 2 masked amidines showed different activities in the screen; II [81919-16-6] while toxic at high doses, was slightly more active than I at low doses.

IT81919-15-5DP, derivs. 81919-15-5P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and antitrypanosomal activity of)

RN 81919-15-5 CAPLUS

Benzenecarboximidamide, 4,4'-(1,4-phenylenedi-2,1-ethanediyl)bis- (9CI) CN (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \parallel \\ \text{H}_2\text{N-C} \\ \text{CH}_2\text{-CH}_2 \\ \end{array}$$

81919-15-5 CAPLUS RN

Benzenecarboximidamide, 4,4'-(1,4-phenylenedi-2,1-ethanediyl)bis- (9CI) CN (CA INDEX NAME)

$$^{NH}_{H_2N-C}$$
 $_{CH_2-CH_2}$ $^{CH_2-CH_2}$

IT 81919-22-4P

RN 81919-22-4 CAPLUS

CN Benzenecarboximidamide, 4,4'-(1,4-phenylenedi-2,1-ethanediyl)bis-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH} \\ \parallel \\ \text{H}_2\text{N}-\text{C} \\ \text{CH}_2-\text{CH}_2 \\ \end{array}$$

●2 HC1

```
AN
     1998:180759 CAPLUS
DN
     128:243953
     Preparation of N-aralkylpyridine-4-amines and analogs as thrombin
ΤI
     inhibitors
     Naylor-Olsen, Adel M.; Ponticello, Gerald S.; Vacca, Joseph P.; Hungate,
IN
     Randall W.; Coburn, Craig; Phillips, Brian T.; Lewis, S. D.; Fraley, Mark
     Merck & Co., Inc., USA; Naylor-Olsen, Adel M.; Ponticello, Gerald S.;
PA
     Vacca, Joseph P.; Hungate, Randall W.; Coburn, Craig; Phillips, Brian T.;
     Lewis, S. D.; Fraley, Mark E.
SO
     PCT Int. Appl., 152 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                           APPLICATION NO.
                                                           DATE
                                           _____
     WO 9810763
                                           WO 1997-US15989 19970909
                     A1
                            19980319
PI
         W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU,
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            UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
             GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
             GN, ML, MR, NE, SN, TD, TG
                                           AU 1997-44117
                                                            19970909
     AU 9744117
                      A1
                            19980402
                       B2
                            20001012
     AU 725403
                            19990707
                                           EP 1997-942415
                                                            19970909
     EP 927035
                      Α1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
     JP 2001500864
                      T2
                            20010123
                                           JP 1998-513809
                                                            19970909
PRAI US 1996-26033P
                       Ρ
                            19960913
                            19961122
     GB 1996-24278
                      Α
                      W
                            19970909
     WO 1997-US15989
     MARPAT 128:243953
OS
     R1CHR2Z1Z2Z3R [I; R = 4-pyridyl, 4-amidino-1-piperazinyl,
AΒ
     4-aminopyridinium-1-yl, 6-amino- or amidino-3-pyridyl, C6H4[C(:NH)NH2]-4;
     R1,R2 = H, (hetero)aryl, (di)arylalkyl, CONH2, etc.; R1R2 = alkylene; Z1 =
     O, SOO-2, (alkyl)imino, etc.; Z2 = (un)substituted phenylene; Z3 = (CH2)m,
     (CH2) mNH, SO2NH, SO2(CH2)m, SO2, (CH2) mSO2; m = 1 or 2] were prepd. Thus,
     4-(PhO)C6H4CO2H was amidated by 4-aminopyridine and the product reduced to
     give 4-(PhO)C6H4CH2NHR (R = 4-pyridyl). Data for biol. activity of I were
     given.
IT
     204840-19-7P 204840-23-3P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of N-aralkylpyridine-4-amines and analogs as thrombin
        inhibitors)
RN
     204840-19-7 CAPLUS
     Benzenecarboximidamide, 4-[[4-(phenylmethoxy)phenyl]methyl]-,
CN
```

monohydrochloride (9CI) (CA INDEX NAME)

$$H_2N-C$$
 H_2N-C
 H

● HCl

RN 204840-23-3 CAPLUS

CN Benzenecarboximidamide, 4-[[4-(phenylmethoxy)phenyl]methyl]- (9CI) (CA INDEX NAME)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 18 L8 HAS NO ANSWERS L8 ST

REP G1=(0-2) CH VAR G2=O/S VAR G3=C/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 6

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

=> s 18 ful

FULL SEARCH INITIATED 16:45:32 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 5187 TO ITERATE

100.0% PROCESSED 5187 ITERATIONS

147 ANSWERS

SEARCH TIME: 00.00.01

L10 147 SEA SSS FUL L8

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COST IN U.S. DOLLARS

SINCE FILE TOTAL FUTBY SESSION

FULL ESTIMATED COST

ENTRY SESSION 447.65 447.86

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FILE COVERS 1907 - 14 Apr 2003 VOL 138 ISS 16

FILE LAST UPDATED: 13 Apr 2003 (20030413/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 110 L11

=> d bib abs 1-8

L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS

AN 2002:170736 CAPLUS

8 L10

DN 137:63452

TI Synthesis of Potential Thrombin Inhibitors. Incorporation of Tartaric Acid Templates as P2 Proline Mimetics

AU Dahlgren, Anders; Branalt, Jonas; Kvarnstrom, Ingemar; Nilsson, Ingemar; Musil, Djordje; Samuelsson, Bertil

CS Department of Chemistry, Linkoping University, Linkoping, S-581 83, Swed.

SO Bioorganic & Medicinal Chemistry (2002), 10(5), 1567-1580 CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 137:63452

AB With the objective to prep. novel non-peptidic thrombin inhibitors, bioisosteres of the inhibitory tripeptide D-Phe-Pro-Arg chain have been examd. Thus, the P1 Arg was replaced with p-amidinobenzylamine, an elongated homolog of the same and with 2,5-dichloro benzylamine. The P2-P3, D-Phe-Pro, was replaced with a novel tartaric acid template coupled to a series of readily available, mainly lipophilic, amines. Some of these compds. exhibit promising thrombin inhibition activity in vitro, IC50.apprx.5.9 .mu.M.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS

AN 2001:150305 CAPLUS

DN 135:15886

TI Computational modelling of inhibitor binding to human thrombin

AU Ljungberg, K. B.; Marelius, J.; Musil, D.; Svensson, P.; Norden, B.; Aqvist, J.

CS BMC, Department of Cell and Molecular Biology, Uppsala University, Uppsala, SE-751 24, Swed.

SO European Journal of Pharmaceutical Sciences (2001), 12(4), 441-446 CODEN: EPSCED; ISSN: 0928-0987

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

Thrombin is an essential protein involved in blood clot formation and an important clin. target, since disturbances of the coagulation process cause serious cardiovascular diseases such as thrombosis. Here the authors evaluate the performance of a mol. dynamics based method for predicting the binding affinities of different types of human thrombin inhibitors. For a series of eight ligands, the method ranks their relative affinities reasonably well. The binding free energy difference between high and low affinity representatives in the test set is quant. reproduced, as well as the stereospecificity for a chiral inhibitor. The original parametrization of this linear interaction energy method requires the addn. of a const. energy term in the case of thrombin. This yields a mean unsigned error of 0.68 kcal/mol for the abs. binding free energies. This type of approach is also useful for elucidating three-dimensional structure-activity relationships in terms of microscopic interactions of

the ligands with the solvated enzyme.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS
L11
     2000:241135 CAPLUS
AN
     132:279106
DN
     Non-peptide GnRH agents, methods and intermediates for their preparation
ΤI
     Anderson, Mark Brian; Vazir, Haresh N.; Luthin, David Robert; Paderes,
IN
     Genevieve Deguzman; Pathak, Ved P.; Christie, Lance Christopher; Hong,
     Yufeng; Tompkins, Eileen Valenzuela; Li, Haitao; Faust, James
     Agouron Pharmaceuticals, Inc., USA; et al.
PA
     PCT Int. Appl., 444 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                     KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
                           _____
                                           ______
                                           WO 1999-US18790 19990820
     WO 2000020358
                     A2
                            20000413
PΙ
                     A3
     WO 2000020358
                            20001116
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
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             MD, RU, TJ, TM
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             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2341346
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                            20010515
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     BR 9913374
                       Α
                                         EP 1999-968010
                                                            19990820
     EP 1105120
                       A2
                            20010613
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     EE 200100102
                     Α
                       T2
                            20021022
                                           JP 2000-574479 19990820
     JP 2002535244
     NO 2001000309
                       Α
                            20010411
                                           NO 2001-309
                                                            20010119
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                                           LV 2001-45
     LV 12732
                       В
                            20020320
                                                            20010319
                                           LT 2001-24
     LT 4904
                       В
                            20020425
PRAI US 1998-97520P
                     P
                            19980820
     WO 1999-US18790 W
                           19990820
     MARPAT 132:279106
os
GΙ
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Non-peptide GnRH agents capable of inhibiting the effect of AB gonadotropin-releasing hormone are described. The compds. and their pharmaceutically acceptable salts, multimers, prodrugs, and active metabolites are suitable for treating mammalian reproductive disorders and steroid hormone-dependent tumors as well as for regulating fertility, where suppression of gonadotropin release is indicated. The compds. include those of formula I [X = C:O, C:S, S:O, or SO2; Het = 5-membered NOS-heterocycle; R1, R2 = H, alkyl; R3-R7 = H, halo, (un) substituted alkyl, aryl, heteroaryl, CH2OR, OR, CO2R; R = alkyl, aryl, etc.; adjacent rings positions such as R6R7 may form (un) substituted 5- or 6-membered ring with up to 4 heteroatoms; R8 = lipophilic moiety such as alkyl, aryl, CH2OR, OR, etc.; R9 = H, (un) substituted alkyl]. Methods and intermediates for synthesizing the compds. are also described. For instance, 4,4,7-trimethylchroman (prepn. given) was alkylated in the 6and 8-positions using Et 5-(chloromethyl)-2-furoate (46% total yield), and the resulting esters were hydrolyzed to a mixt. of acids. This unsepd. mixt. was treated with SOCl2 and amidated with 2,4,6-trimethoxyphenylamine-HCl to give the invention compd. II and its chroman-6-position isomer, which were sepd. by HPLC. Several compds. exhibited high affinity (<100 nM) at human GnRH receptors. The compds. antagonized GnRH-stimulated inositol phosphate accumulation in cells with recombinant human GnRH receptors, and an example compd. reduced plasma LH levels in castrated male rats. Various biol. data for several hundred compds. are given.

II

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L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS
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AN 1999:529128 CAPLUS

DN 131:184864

TI Preparation of amidinophenylcarbamoylbiphenyl derivatives and heterocyclic analogs thereof as inhibitors of blood coagulation factor VIIa

IN Senokuchi, Kazuhiko; Ogawa, Koji

PA Ono Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 665 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9941231 A1 19990819 WO 1999-JP622 19990212

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,

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                                            AU 1999-23006
     AU 9923006
                       A1
                            19990830
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     EP 1078917
                       A1
                            20010228
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            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     ZA 9901273
                            19990825
                                            ZA 1999-1273
                                                              19990217
                       Α
     US 6358960
                       В1
                            20020319
                                            US 2000-601998
                                                              20000811
PRAI JP 1998-76815
                       Α
                            19980217
     WO 1999-JP622
                       W
                            19990212
os
     MARPAT 131:184864
GΙ
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The title compds. I [T1 = (R5)q; T2 = (R7)n; T3 = (R6)m; T4 = (R4)p; R1,AΒ R2 = H, alkoxycarbonyl, etc.; a proviso is given; R3 = H, alkyl, etc.; ring E1 = unsatd. heterocyclic ring, etc.; ring E2 = unsatd. heterocyclic ring, etc.; ring E3 = unsatd. or satd. heterocyclic ring, etc.; ring E3 may be omitted; ring E4 = unsatd. heterocyclic ring, etc.; R4, R5 = CO2R8, etc.; R8 = H, alkyl, etc.; p, q = 0, or 1, 2; p + q = 1 or 2; R6, R7 = H, alkyl, etc.; m = 1 - 3; n = 1 - 3] are prepd. I are useful as preventives and/or remedies for various vascular lesions assocg. accelerated coagulation activity, for example, universal intravascular coagulation syndrome, coronary thrombosis, brain infarction, brain embolism, transient cerebral ischemic attack, diseases assocg. cerebral vascular disorders, deep vein thrombosis, peripheral embolism, thrombus formation following artificial blood vessel operation or artificial valve replacement, diseases assocg. postoperative thrombus formation, reobstruction and reconstriction following coronary artery bypass, reobstruction and reconstriction following PTCA or PTCR, thrombus formation during extracorporeal circulation and glomerulonephritis. Formulations contg. a compd. of this invention are given. In an in vitro test, 2-[2-(4-amidinophenylcarbamoyl)-6-methoxy-3-pyridyl]-5-[(1(S)hydroxymethyl-2,2-dimethylpropyl)carbamoyl]benzoic acid methanesulfonic acid salt showed IC50 of 0.013 .mu.M against factor VIIa. RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L11 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS AN 1998:550423 CAPLUS
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DN 129:175969

TI Preparation of .beta.-(arylcarbonylamino)alanines and analogs as fibrinogen receptor antagonist prodrugs

IN Egbertson, Melissa S.; Young, Steve D.; Hartman, George D.; Cook, Jacquelynn J.

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 78 pp.

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CODEN: PIXXD2
DT
     Patent
     English
LΑ
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                      KIND DATE
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     PATENT NO.
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     WO 9834935
                      A1
                            19980813
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             US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
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     AU 9861413
                       A1
                            19980826
                                            AU 1998-61413
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     AU 747293
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                       A1
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     US 5981584
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PRAI US 1997-36901P
                       P
                            19970206
     GB 1997-7489
                             19970414
                       Α
     WO 1998-US1998
                       W
                             19980202
     MARPAT 129:175969
os
     H2NC(:NOH)Z1Z2Z3CONHCH2CR2R3CO2R4 [I; R2,R3 = H, OH, CO2H, (un)substituted
AB
     amino, etc.; R4 = H, alkyl, aryl, etc.; Z1 = (un) substituted phenylene; Z2
     = (CH2)mZ(CH2)p; Z = bond, O, CO, NH, CONH, etc.; Z3 = heterocyclylene,
     (hetero)arylene, etc.; m,p = 0-6] were prepd. as fibrinogen receptor
     antagonist prodrugs (no data). Thus, 4-(NC)C6H4NO2 was etherified by 4-(HO)C6H4CO2H and the product amidated by (R)-H2NCH2CH(CO2Et)NHSO2C6H4Me-4 to give, after oximation, (R)-I (R2 = H, R3 = NHSO2C6H4Me-4, R4 = Et, Z1
     = 73 = 1,4-phenylene, 22 = 0).
              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 2
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS
T.11
AN
     1995:998406 CAPLUS
DN
     124:203098
     Preparation of peptide factor Xa inhibitors as antithrombotics.
TI
     Al-Obeidi, Fahad; Lebl, Michal; Ostrem, James A.; Safar, Pavel;
TN
     Stierandova, Alena; Strop, Peter; Walser, Armin
PA
     Selectide Corp., USA
SO
     PCT Int. Appl., 107 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
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     WO 9529189
                      A1
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             SN, TD, TG
     CA 2186497
                             19951102
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     EP 758341
                       A1
                             19970219
                                            EP 1995-917736
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CN 1147261

Α

19970409

CN 1995-192811 19950425

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19970828
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PRAI US 1994-233054 A
                           19940426
    US 1995-428404
                     B1
                           19950425
    WO 1995-US5268
                      W
                           19950425
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MARPAT 124:203098 OS

AB (substituted) 1-20 amino acid residues, R11CO, R11R12X; X = N, CH, NCO; R11, R12 = H, alkyl, acyl, aryl, aralkyl, protecting group; R2 = CR99R100; R99, R100 = H, (substituted) alkyl, aralkyl, heteroaralkyl, heteroaryl; R3 = CO, CH2, CHR99CO, etc.; R4 = CH2, imino; R5 = CR201R202; R201, R202 = H, (substituted) alkyl, aryl, aralkyl; R6 = CO, CH2, CHR99CO; R7 = (substituted) R4; R8 = CR210R211; R210, R211 = H, (substituted) alkyl, alkylaryl, heterocyclyl; R9 = CO, CH2, CHR99CO; B = (substituted) 1-20 amino acid residues, amino, OH, alkoxy, acyloxy, etc.; with provisos], were prepd. Thus, Ac-Tyr-Chg-Arg-NH2 (Chg = cyclohexylglycyl) inhibited coagulation in human plasma with EC50 = 2.5 .mu.M.

- L11 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS
- AN 1982:103923 CAPLUS
- DN96:103923
- Semisynthetic cephalosporins with .alpha.-oximino acid side chains. The TIpreparation and coupling of 4-acylamino-.alpha.-oximinobenzeneacetic acids and 1,2-dihydro-6-methyl-.alpha.-oximino-2-oxo-3-pyridineacetic acid to 7-aminocephalosporanic acid
- Domagala, John M.; Haskell, Theodore H.; Showalter, H. D. Hollis Chem. Dep., Warner-Lambert, Ann Arbor, MI, 48105, USA ΑU
- CS
- SO Journal of Antibiotics (1981), 34(11), 1447-55 CODEN: JANTAJ; ISSN: 0021-8820
- DTJournal
- English LA
- A series of 4-acylamino-.alpha.-oximinobenzeneacetic acids, and AB 1,2-dihydro-6-methyl-.alpha.-oximino-2-oxo-3-pyridineacetic acid were prepd. and coupled to 7-aminocephalosporanic acid and its $3-(1-methyltetrazol-5-yl)\,thio$ analog. Several coupling methods and oxime protecting groups were thoroughly examd. The best coupling procedure employed Me2N+:CHClCl-, and the tetrahydropyranyl group was selected for oxime protection. The cephalosporins prepd. were active against Staphylococcus aureus, but less effective than cefuroxime and cefotaxime. The corresponding .alpha.-keto acids, and O-Me oximes were less active.
- L11ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS
- 1981:83728 CAPLUS ΑN
- DN 94:83728
- TI Synthesis of (Z)-4-(acylamino) - and 4-(alkylamino) - .alpha.oximinophenylacetic acids: properties and stereochemical determination Domagala, John M.; Haskell, Theodore H. ΑU
- CS Chem. Dep., Warner-Lambert/Parke-Davis Pharm. Res. Div., Ann Arbor, MI, 48105, USA
- Journal of Organic Chemistry (1981), 46(1), 134-40 SO CODEN: JOCEAH; ISSN: 0022-3263
- DT Journal
- English LΑ

GI

AB Acetophenones I (R = Ac, PhCH2O2C) were oxidized by SeO2 to give phenylglyoxylic acids II, which were converted to their corresponding oximes. The stereochem. of these oximes was detd. to be Z (syn.).

AN 1979:593292 CAPLUS

DN 91:193292

TI 1-(N-Amidino)amidino-4-N-(3-methyl-5-isoxazolylcarbonyl)aminomethylpiperid ine sulfate

IN Honna, Koji; Hashimoto, Sadao; Suzue, Takashi

PA Taiho Yakuhin Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

_							
		PA'	TENT NO.	KIND	DATE	APPLICATION NO.	DATE
					-		
F	·Ι	JΡ	54066685	A2	19790529	JP 1977-132813	19771105
		JP	62005156	B4	19870203		
E	RAI	JΡ	1977-132813		19771105		
G	ΞI						

$$\begin{array}{c|c} \text{Me} & \text{CONHCH}_2 \\ \hline & \text{N-O} \\ \end{array}$$

AB Refluxing 3.5 g Me 3-methylisoxazole-5-carboxylate with 5.7 g
4-(aminomethyl)piperidine in MeOH 7 h and treating with HCl gave 67.8%
4-[N-(3-methyl-5-isoxazolylcarbonyl)amino]methylpiperidine-HCl, which (8.4 g) was heated with 2.8 g H2NC(:NH)NHCN 1 h at 150-60.degree. to give, after converting to the sulfate, 42.1% I.0.5H2SO4. I is useful as a hypoglycemia and hypolipemic agent (no data).

=> analyze 11
ENTER ANSWER NUMBER OR RANGE (1-):1
ENTER DISPLAY CODE (TI) OR ?:rn

L2 ANALYZE L1 1 RN : 5 TERMS

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	14.25	14.46
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY -0.65	SESSION -0.65

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STRUCTURE FILE UPDATES: 3 NOV 2003 HIGHEST RN 612478-18-9 DICTIONARY FILE UPDATES: 3 NOV 2003 HIGHEST RN 612478-18-9

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s 12 L3 5 L2

=> d 1-5

L3 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2003 ACS on STN

RN **71905-05-0** REGISTRY

CN 5-Isoxazolecarboxamide, N-[[1-[[(aminoiminomethyl)amino]iminomethyl]-4-piperidinyl]methyl]-3-methyl-, sulfate (2:1) (9CI) (CA INDEX NAME)

MF C13 H21 N7 O2 . 1/2 H2 O4 S

LC STN Files: CA, CAPLUS

CM 1

CRN 71905-04-9 CMF C13 H21 N7 O2

CM 2

CRN 7664-93-9 CMF H2 O4 S

```
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

L3 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2003 ACS on STN
RN 71905-03-8 REGISTRY
CN 5-Isoxazolecarboxamide, 3-methyl-N-(4-piperidinylmethyl)-,
monohydrochloride (9CI) (CA INDEX NAME)
MF C11 H17 N3 O2 . C1 H
LC STN Files: CA, CAPLUS

● HCl

```
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

L3 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2003 ACS on STN RN **7144-05-0** REGISTRY 4-Piperidinemethanamine (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES: Piperidine, 4-(aminomethyl)- (7CI, 8CI) OTHER NAMES: CN 4-(Aminomethyl)piperidine CN NSC 194294 NSC 62826 CN 3D CONCORD FS MF C6 H14 N2 COM CI STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, LC CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, HODOC*, IFICDB, IFIPAT, IFIUDB, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL (*File contains numerically searchable property data) Other Sources: EINECS**, NDSL**, TSCA** (**Enter CHEMLIST File for up-to-date regulatory information)